



ADMINISTRATIVE COUNTY OF ESSEX.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1936.

WILLIAM A. BULLOUGH, M.Sc., M.B., D.P.H.

COUNTY MEDICAL OFFICER OF HEALTH.

CHELMSFORD :

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PUBLIC HEALTH AND HOUSING COMMITTEE.

Chairman—ALDERMAN A. M. MATHEWS.

Vice-Chairman—ALDERMAN F. D. SMITH.

Aldermen—

A. Brooks, C. W. Daines, H. de Havilland, A. Porter.

Councillors—

J. R. Adams, Mrs. C. B. Alderton, Mrs. L. M. Anderton, P. Astins, W. Bulgin, J. H. Caesar-Gordon, A. L. Clarke, Mrs. C. Custerson, W. J. Day, A. G. Giller, A. W. Green, H. J. Hines, J. C. Mead, J. C. Menhinick, H. F. Pash, C. S. Richardson, F. J. Romanes, Mrs. M. Sorensen, G. J. Wetton, Mrs. B. W. Williams, H. E. Wood and E. G. Wright.

MEDICAL AND NURSING SERVICES JOINT SUB-COMMITTEE.

Aldermen—

A. Brooks (Chairman), C. W. Daines, A. M. Mathews and F. D. Smith.

Councillors—

Rev. B. C. Cann, Miss M. L. Mathieson, J. C. Mead, A. G. Pearce, Mrs. B. W. Williams and E. G. Wright.

Co-opted Member—

Mrs. K. M. E. Bell.

HOSPITALS SURVEY COMMITTEE.

Aldermen—

A. Bradridge, A. Brooks, C. W. Daines, H. de Havilland (Chairman), A. M. Mathews, A. Porter, J. T. Sanders, F. D. Smith, Col. Gilbertson Smith.

Councillors—

P. Astins, W. Bulgin, Mrs. C. C. Chisholm, Mrs. C. Custerson, A. L. Clarke, A. W. Green, J. C. Mead, G. H. Spackman.

P R E F A C E .

To the Chairman and Members of the Essex County Council.

I have the honour to submit to you my Eighteenth Annual Report for the Administrative County of Essex for the year 1936. This is the 47th Annual Report which has been issued.

The estimated population at mid-year 1936 was 1,344,460, being an estimated increase of 26,560.

There was a slight increase in the number of births during 1936, the figure being 19,516 (14.5), as compared with 18,807 (14.3) in 1935. The birth-rate for England and Wales is 14.8 and 14.7 respectively. The lowest rate (9.9) recorded in the County was in the Saffron Walden Borough, and the West Mersea Urban District, and the highest (20.2) was in the Hornechurch Urban District. In one Municipal Borough, eight Urban Districts and five Rural Districts, the birth-rate was lower than the death-rate.

An increase is also recorded in the deaths from 12,531 in 1935 (9.5) to 13,369 in 1936 (9.9). Comparative figures for England and Wales also showed an increase from 11.7 to 12.1. Figures for heart disease (3,398) and cancer (1,945) are again the highest shown in the Table "Causes of Death"—see page 125. The figure for heart disease is the highest ever recorded in the County; in ten years it has increased from 1,800 to 3,398.

The number of deaths of infants under one year of age per 1,000 births increased from 820 (44) in 1935 to 954 (49) in 1936, the rates for England and Wales being respectively 57 and 59. The highest rate (98) was in the Canvey Island Urban District, the lowest (12) being in the Halstead Rural District.

The Administrative County was again free from small-pox during the year, and there was a further reduction in the number of notifications of infectious diseases from 8,913 in 1935 to 8,083 in 1936, due to a decrease in the number of cases of diphtheria and scarlet fever.

For the first time a section on "Dental Treatment" has been introduced into the Annual Report—see page 22. It was felt that there should be some special record of the increasing use which is being made of the services of the whole-time Dental Surgeons, (whose main duties are the inspection and treatment of school-children), for the treatment of patients falling within the purview of Public Health and Public Assistance. Attention is drawn to the report furnished by the Senior Dental Surgeon (Mr. S. K. Donaldson, L.D.S.), upon the prevalence of "Mottled Teeth" in the Maldon and Rochford areas.

Increased facilities, particularly in regard to the examination of samples of milk and water, were made available in the County Laboratory Service from 1st April, 1936. In consequence, Dr. John F. Beale, the Bacteriologist for Essex, states in his Annual Report, which is reproduced on pages 24 to 35, that 4,098 more specimens

were examined during the year 1936. A perusal of these pages gives some idea of the great variety of work undertaken by Dr. Beale, to whom I am especially indebted for the care and attention which he ungrudgingly devotes to this work.

The work in the general section of the Public Health Department continues to increase and includes matters affecting housing, rivers pollution, milk supplies, water supplies, refuse dumps, establishments for massage and special treatment, and town and country planning. Records of work done under these headings are set out in the body of this report. Definite progress in housing matters has been made in the rural districts, and more owners (128 against 83 last year) are taking advantage of the grants available for re-conditioning houses under the Housing (Rural Workers) Acts, 1926-1931.

The milk supply of the County continues to improve, the number of farms licensed to produce designated milk having increased from 634 in 1935 to 794 in 1936. A simplification of designations has been brought about by the Milk (Special Designations) Order, 1936, which also since 1st January, 1937, has substituted the Methylene Blue Reduction Test for the Bacteria Count. It is too early to bring forward any constructive criticism of this change, but investigations are being carried out by the East Anglian Institute of Agriculture, Chelmsford. Farmers are, however, missing from the reports the number of bacteria which rightly or wrongly they considered was of much more service to them than the statement that a sample has or has not passed the Methylene Blue Reduction Test.

Grants amounting to £53,825 have been promised by the Ministry of Health towards the cost of providing public water supplies in rural areas. Rapid progress has been made upon some of the schemes, but unfortunately, schemes are now being delayed owing to the difficulty in obtaining materials. The need for these schemes is realised when it is remembered that it is still necessary to cart water for human consumption to some parts of the rural districts.

The County Scheme for the treatment of tuberculosis is continuing to function satisfactorily and no effort is spared to bring to the notice of all tuberculosis patients the facilities available under the scheme. More and more use is being made by the general practitioners of the modern facilities for early diagnosis and consequently large numbers of "doubtful" cases are now referred to the Tuberculosis Dispensaries for consultation and diagnosis.

There is no striking change in the incidence or death rate from tuberculosis, though the recorded figures harmonise with the general decline in this disease. There is a continuous development both of the dispensary and institutional services, while the voluntary work carried out by Care Associations in the various districts still renders a valued service.

The conditions determining a policy of increased sanatorium provision are considered in the body of the report, and it is hoped that in the near future almost all Essex patients will receive their treatment in our own institutions, where a high standard is maintained and where the clinical work keeps abreast of all modern developments.

It is interesting to note that cases of advanced tuberculosis are now more willing to enter and remain in an institution and although this has necessitated the provision of a larger number of beds for this type of case, the value of such beds in preventing the spread of infection is inestimable.

Pages 61 to 69 under the heading "Provision of Hospital Services" gives the position concerning the Council's activities in connection with (a) improvement and development of Oldechurch Hospital, appropriated by the Public Health and Housing Committee in October, 1935, (b) acquisition of sites for new Council Hospitals and proposals relating thereto, and (c) negotiations with Voluntary Hospitals.

Reference is also made in some detail to the recruitment and training of Nurses and the need for an effort by all concerned to find the best solution of this problem.

The report shows that a good deal of work has been carried out and has yet to be done to attain our objective, which is to provide and maintain an adequate and efficient Hospital Service in the County. Such provision involves large capital expenditure which must be spread over a period of years, and although progress may seem slow, it will be appreciated that there is need for the most careful investigation and consideration of each project, and for the making of arrangements which will be capable of adjustment and amendment in the light of experience.

Part III of this report gives details of the Council's Scheme for Maternity and Child Welfare and includes (a) statement by the Senior Dental Surgeon concerning care of the teeth of mothers and pre-school children, (b) the result of the experiment with the revised scheme for the provision of Home Helps, (c) the attention given to following up cases of puerperal infection in a scientific manner, (d) details of the Council's Scheme to be brought into operation in July, 1937, under the new Midwives Act, 1936, and (e) attendance by officers at the International Midwifery Congress in Berlin.

In Part IV, headed "Public Assistance," the usual details have been given concerning major improvements made at Institutions during the year and particulars are given of the result of the two years' training of suitable women as Assistant Nurses under what has come to be known throughout the country as the "Essex Scheme."

The results of the first year's working of the "Free Choice of Doctor" system are also set out in some detail.

I have great pleasure in recording my appreciation of the confidence and support given to me by the Chairmen and Members of the Public Health and Public Assistance Committees. To all the Medical Officers of Health, and other officials of the Local Sanitary Authorities, to the Medical, Dental, Nursing, Inspectorial and Clerical Staffs, my best thanks are due for their efficient services. I am especially indebted to the Deputy County Medical Officer, Dr. T. P. Puddicombe for his loyal support.

W. A. BULLOUGH,
County Medical Officer.

PUBLIC HEALTH DEPARTMENT,
COUNTY HALL,
CHELMSFORD.

7th July, 1937.

STAFF.*(1st April, 1937).***County Medical Officer, School Medical Officer and Chief Tuberculosis Officer.**

W. A. Bullough, M.Sc., M.B., Ch.B., D.P.H.

Deputy County Medical Officer.

T. P. Puddicombe, D.S.O., M.B., B.S., M.R.C.S., L.R.C.P., D.P.H.

Assistant County Medical Officers—Central Staff.

W. L. Yell, M.D., D.P.H., Senior Assistant County Medical Officer.

J. L. Miller Wood, M.R.C.S., L.R.C.P., D.P.H., M.M.S.A., First Assistant County Medical Officer.

G. G. Stewart, M.R.C.S., L.R.C.P., D.P.H., Assistant County Medical Officer.

Specialist Staff.*(a) Whole-time.*

G. A. Jamieson, M.B., B.S., D.O.M.S., Ophthalmic Surgeon.

(b) Part-time.

Sir Henry J. Gauvain, M.C., M.A., M.D., F.R.C.S., Consulting Surgeon—Surgical Tuberculosis.

W. Burton Wood, M.A., M.D., M.R.C.P., D.P.H., Consulting Physician, Diseases of the Chest.

Mather Cordiner, M.B., Ch.B., D.M.R.E., Radiologist, Oldchurch Hospital.

G. Franklin Wood, M.A., M.B., B.Ch., D.M.R.E., Radiologist—Sanatoria.

Hamilton Bailey, F.R.C.S., Consulting Surgeon, Oldchurch Hospital.

R. W. Reid, M.S., F.R.C.S., Surgeon, Black Notley Sanatorium.

Arthur Burrows, M.D., M.R.C.P., D.M.R.E., Skin and Radium Specialist.

W. S. O'Loughlin, M.D., M.C.O.G., Gynæcologist and Obstetrician.

Hamblen Thomas, F.R.C.S., Ear, Nose and Throat Specialist.

T. Collyer Summers, F.R.C.S., Consulting Ophthalmologist, Oldchurch Hospital.

B. Whitechurch Howell, F.R.C.S., Orthopædic Surgeon.

J. F. Beale, B.A., M.R.C.S., L.R.C.P., D.P.H., Bacteriologist for Essex.

Kenneth Shirley Smith, M.D., F.R.C.P., B.Sc., General Consulting Physician, Oldchurch Hospital.

F. E. Camps, M.D., M.R.C.S., L.R.C.P., Consultant Physician and Pathologist.

Whole-time Medical Staff, Oldchurch Hospital, Romford.

E. Miles, M.B., Ch.B., D.P.H., Resident Medical Superintendent.

F. N. Foster, F.R.C.S., Non-resident Deputy Medical Superintendent.

E. B. Whittingham, F.R.C.S., Assistant Resident Surgeon.

A. Garland, M.B., B.S., D.P.H., Non-resident Assistant M.O.

D. Stephens, M.R.C.S., L.R.C.P., Non-resident Assistant M.O.

J. L. Hopkins, L.M.S.S.A., Resident Assistant M.O.

S. F. Marshall, M.B., B.S., Non-resident Assistant M.O. and Pathologist.

Eileen Whapham, M.B., B.S., Resident Assistant M.O.

Ronald Stewart, M.B., Ch.B., Resident Assistant M.O.

Francis R. Berridge, M.R.C.S., L.R.C.P., D.M.R., Resident Assistant Radiologist.

James G. Murdoch, M.B., Ch.B., Junior Resident Medical Officer for 12 months.

T. B. Gordon, M.B., Ch.B., Junior Resident Medical Officer for 12 months.

Assistant County Medical Officers who are also Local Medical Officers of Health.

Name.	Qualifications.	Duties.
W. H. Alderton	.. M.C., M.R.C.S., L.R.C.P., D.P.H.	M.O.H., T.O., S.M.I., C.W.O.
B. Fraser Beatson	.. M.R.C.S., L.R.C.P., D.P.H., D.T.M. & H.	M.O.H., S.M.I., C.W.O.
W. T. G. Boul	.. M.D., D.P.H.	.. M.O.H., T.O., S.M.I.
K. N. Mawson	.. M.B., Ch.B., D.P.H.	.. Deputy M.O.H. and Asst. C.M.O.
Anna R. Park	.. M.B., B.S., D.P.H.	.. Asst. M.O.H. and Asst. C.M.O.
L. S. Fry	.. B.A., M.D., D.P.H.	.. M.O.H., T.O. (including M.O., High Beech Sanatorium).
J. Hatton	.. M.D., D.P.H.	.. M.O.H., T.O.
N. S. R. Lorraine	.. M.D., D.P.H., F.R.S. (Edin.)	.. M.O.H., T.O., S.M.I., C.W.O.
W. A. Milne	.. M.B., Ch.B., D.P.H.	.. M.O.H., T.O., S.M.I., C.W.O.
J. Ramsbottom	.. M.B., Ch.B., D.P.H.	.. M.O.H., T.O., S.M.I., C.W.O.
J. S. Ranson	.. M.R.C.S., L.R.C.P., D.P.H.	.. M.O.H., T.O., S.M.I., C.W.O.
S. R. Richardson	.. B.A., M.D., D.P.H.	.. M.O.H., T.O., S.M.I., C.W.O.

Medical Officers of Health undertaking some duties part-time for the County Council.

Name.	Qualifications.	District.
W. F. Corfield	.. M.D., D.P.H.	.. Colchester.
C. E. E. Herington	.. M.B., B.S., D.P.H.	.. Dagenham.
J. B. Samson	.. M.D., D.P.H.	.. Romford.
J. C. Sleight	.. M.B., Ch.B., D.P.H.	.. Chelmsford.

Whole-time Assistant County Medical Officers.

Name.	Qualifications.	Duties.
Kathleen M. Bodkin	.. M.R.C.S., L.R.C.P., D.P.H.	.. S.M.I. and C.W.O.
F. G. Brown	.. B.A., M.B., B.Ch., B.A.O., D.P.H.	T.O. (including M.O., Harold Court Sanatorium).
R. C. Cohen	.. M.D., D.P.H.	.. Asst. M.O., Black Notley San.
J. G. Currid	.. M.A., M.B., Ch.B., D.P.H.	.. T.O.
Rachel A. Elliott	.. M.D., D.P.H.	.. S.M.I. and C.W.O.
E. L. Ewan	.. M.B., Ch.B., D.P.H.	.. S.M.I.
V. Feldman	.. M.D., M.R.C.S., M.R.C.P., D.P.H.	S.M.I. and C.W.O.
A. R. Forbes	.. M.B., Ch.B., D.P.H.	.. S.M.I.
Annie B. Gardiner	.. M.B., Ch.B.	.. S.M.I. and C.W.O.
A. R. Graham	.. M.B., Ch.B., D.P.H.	.. S.M.I. and C.W.O.
J. Graham	.. M.A., M.B., Ch.B.	.. S.M.I.
R. D. Gray	.. M.B., Ch.B.	.. S.M.I.
Mary Meta Mackenzie	.. M.B., Ch.B., D.P.H., M.M.S.A.	S.M.I. and C.W.O.
T. L. Ormerod	.. M.A., M.B., B.Ch.	.. T.O.
H. Ramsay	.. M.B., B.S., M.R.C.S., L.R.C.P.	T.O.
Mary D. Rankine	.. M.B., Ch.B., D.P.H., M.M.S.A.	S.M.I. and C.W.O.
J. E. Stokes	.. M.A., M.D., D.P.H.	.. T.O.
Mary Sutcliffe	.. M.A., M.R.C.S., L.R.C.P., B.Ch., D.P.H.	S.M.I. and C.W.O.
M. C. Wilkinson	.. M.B., B.S., M.R.C.S., L.R.C.P.	Med. Supt., Black Notley San.

Medical Practitioners performing duties for County Council (part-time), S.M.I., C.W.O. or V.D.

I. M. Bell, L. M. Billingham, W. N. Booth, C. R. Dykes, W. F. Erskine, Mary E. Fox, H. J. Garland, Sybil D. Goodwill, Gwenedd Hugh-Jones, Alice Mackenzie, Lily Mackinnon, J. G. Madden, J. T. Moffat, F. A. M. Nelson, Evelyn Pirrie, Jemima B. Ratcliffe, G. F. Rees Jones, P. T. Spencer Phillips, Margaret Turner, H. A. Watney, C. A. Weller, J. T. Whitley, W. S. Willmore.

Matrons of County Sanatoria.

M. Ruck, R.R.C.	Black Notley Sanatorium.
S. B. Loosley	..	..	..	..	Harold Court Sanatorium.
A. Roberts	..	..	..	..	High Beech Sanatorium.
E. M. McArthur	..	..	..	..	Oldchurch Hospital.
E. Ward	..	..	..	..	Brookfield Orthopædic Hospital.

Technical Staff.**County Health Inspector—**

A. Marsh, F.R. San. I. and Cert. Insp. of Meat and other Foods.

Assistant County Health Inspectors—

R. H. Wigmore, M.S.I.A. and Cert. Insp of Meat and other Foods.

L. Y. Whittingham, A.R. San. I. and Cert. Insp. of Meat and other Foods.

Orthopaedic Masseuses.**County Orthopaedic Masseuse—**

M. Scott, Teachers Dip., Ed. Gym., R.S.I., C.S.M.M.G., M.E.

District Orthopaedic Masseuses—

M. Haydon, C.S.M.M.G. and M.E.

M. E. Wells, C.S.M.M.G. and M.E.

Part-time Orthopaedic Masseuse. (By arrangement with B.R.C.S.).

D. Parsons, C.S.M.M.G.

Health Visitors, School and Tuberculosis Nurses.**Chief Health Nurse—**

D. M. Landon, Gen. Training, Cert. Mid. and R.S.I. (Also County Superintendent, Essex County Nursing Association).

Assistant Chief Health Nurses—

E. A. Davieson, H.V. Cert., Gen. Training and Cert. Mid.	} (Also Asst. County Superintend- ents, Essex County Nursing Association.)
M. Evans, H.V. Cert., Gen. Training and Cert. Mid.	

Relief Health Visitor—

G. M. White, New H.V. Cert., Gen. Training and Cert. Mid.

(a) Whole-Time County Council.

Centre.	Name.	Qualifications.	Duties undertaken.		
			T.B.	S.N.	C.W.
Saffron Walden	.. Woodman, E. M.	Gen. Training and Cert. Mid- wife	Yes	Yes	Yes
Halstead	.. Starr, G. M.	.. New H. V. Cert., Gen. Training and Cert. Midwife	..	..	..
..	.. Jossaume, J.	.. New H.V. Cert., Gen. Training and Cert. Midwife	..	..	..
Lexden & Winstrec	Meachen, N. V.	.. Gen. Training, Cert. Midwife and S.R.N.	..	..	..
..	.. Jackson, M. J.	.. Gen. Training and Cert. Mid- wife	..	..	..

Health Visitors, &c.—*continued.*(a) Whole-Time County Council—*continued.*

Centre.	Name.	Qualifications.	Duties undertaken.		
			T.B.	S.N.	C.W.
Tendring	.. Steele, R. M.	.. Gen. Training and Cert. Midwife	Yes	Yes	Yes
„	.. Wallace, A. C. G.	New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
„	.. Croll, M.	.. New H.V. Cert., Gen. Training, Cert. Midwife and R.S.I.	„	„	„
Saffron Walden	.. Chittenden, A. E.	Gen. Training and Cert. Midwife	„	„	„
Dunmow	.. Francis, N. M.	.. New H.V. Cert., Gen. Training, Cert. Midwife and S.R.N.	„	„	„
„	.. Ives, D. M.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
Braintree	.. Dickson, M. W.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
„	.. Humfress, J. K.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
„	.. Watson, H. J.	.. New H.V. Cert., Gen. Training Cert. Midwife and R.S.I.	„	„	„
Epping	.. Myers, S. J.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
„	.. Cooper, D. G.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
Ongar	.. Mann, R. L.	.. New H.V. Cert., Cert. Midwife	„	„	„
Chelmsford	.. Bass, N. S.	.. R.S.I. and Cert. Midwife	„	„	„
„	.. Anderson, J. A.	.. H.V. Dip., San. Insp. Exam. Board and Cert. Midwife	„	„	„
„	.. Haryott, G. A.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
Maldon	.. Derry, A. M.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
„	.. Smith, V. E.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
„	.. Teale, C. G.	.. New H.V. Cert. Gen. Training and Cert. Midwife	„	„	„
Chingford	.. Waterhouse, M.	.. King's College Cert. and Bd. of Ed. Cert.	„	„	„
„	.. Turner, V. M.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
„	.. Bond, D. E.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
Waltham Abbey	.. Owen, C. A.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
Woodford	.. Waterhouse, K.	.. Children's Cert. and Cert. Midwife	„	„	No
Buckhurst Hill	.. Glover, E.	.. Gen. Training, Cert. Midwife and R.S.I.	„	„	Yes
Romford	.. Newby, A. E.	.. Gen. Training ..	„	„	No
„	.. Champion, G. F.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	Yes
Hornchurch	.. Fawcett, E. H.	.. Gen. Training, R.S.I. and L.O.S.	„	„	„
„	.. Knox, E. A.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„

Health Visitors, &c.—continued.**(a) Whole-time County Council—continued.**

Centre.	Name.	Qualifications.	Duties undertaken.		
			T.B.	S.N.	C.W.
Hornchurch	.. Robinson, V. M.	.. New H.V. Cert., Gen. Training and Cert. Midwife	Yes	Yes	Yes
„	.. Land, L. B.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
Brentwood	.. Hughes, M. A.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
„	.. Hillyer, I. G.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
Billericay	.. Lamb, M. E.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
Billericay	.. Shepherd, M. A.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
Orsett ..	.. Wall, A. D.	.. Gen. Training ..	„	„	No
Rochford	.. Smith, E. M.	.. Gen. Training and Cert. Midwife	„	„	Yes
Benfleet	.. Richardson, P. M.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
Rayleigh	.. Cassidy, M.	.. Gen. Training and Cert. Midwife	„	„	„
Canvey Island	.. Knight, M. K.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„

(b) Whole-time Tuberculosis Nurses.

Barking	.. Sansom, R.	.. Gen. Training ..	.. Yes	No.	No.
„	.. Westcott, H. M.	.. Gen. Training „	„	„
Dagenham	.. Richards, E. F.	.. Board of Education (1923) Cert. Midwife	„	„	„
„	.. Stewart, D. B.	.. Gen. Training, Cert. Midwife	„	„	„
Ilford ..	.. Martin, V.	.. New H.V. Cert., Gen. Training and Cert. Midwife	„	„	„
„ ..	.. Bowman, T. E.	.. Cert. Midwife and Nursing Cert.	„	„	„
Leyton	.. Griffin, M. W.	.. Board of Education (1923) Cert., Cert. Midwife and R.S.I.	„	„	„
„	.. Lamborn, E. S.	.. Gen. Training, Cert. Midwife and R.S.I.	„	„	„
„ ..	.. Cunningham, J.	.. Gen. Training and Cert. Midwife	„	„	„
Walthamstow	.. Purves, D.	.. Sanatorium Training	.. „	„	„
„	.. Brightman, A. C.	.. Children's Cert.	.. „	„	„
„	.. Amcs, A.	.. Gen. Training and Cert. Midwife	„	„	„

(c) Whole-Time School Nurses.

Dagenham	.. Lunn, E. L.	.. Gen. Training ..	.. No	Yes	No
„	.. Thurtle, E.	.. Gen. Training and Cert. Midwife	„	„	„
„	.. Murphy, E. M.	.. Gen. Training and Cert. Midwife	„	„	„
„	.. Jewell, J. M.	.. Gen. Training and Cert. Midwife	„	„	„
„	.. Jefferson, G. L.	.. Gen. Training „	„	„

Health Visitors, &c.—continued.**(c) Whole-time School Nurses—continued.**

Centre.	Name.	Qualifications.	Duties undertaken.		
			T.B.	S.N.	C.W.
Dagenham	.. Jewell, I. M.	.. Gen. Training and Children's Cert.	No	Yes	No
"	.. Alder, B.	.. Gen. Training and Cert. Midwife	"	"	"
"	.. Charles, J.	.. Gen. Training and Cert. Midwife	"	"	"
Romford	.. Morgan, E. J.	.. Gen. Training and Cert. Midwife	"	"	"

(d) Whole-Time, but only giving part-time to County Council.

Thurrock	.. Allcorn, R. E.	.. H.V.'s Diploma, 1920	.. Yes	Yes	No
"	.. Gibson, I.	.. H.V.'s Diploma	.. "	"	"
"	.. Polley, A.	.. Gen. Training and Cert. Midwife	"	"	"
"	.. Miller, E. C. P.	.. New H.V. Cert., Gen. Training and Cert. Midwife	"	"	"
"	.. Candler, E. M.	.. New H.V. Cert., Gen. Training and Cert. Midwife	"	"	"
"	.. Marshall, E. M.	.. Gen. Training and Cert. Midwife	"	"	"
"	.. Darrell, E.	.. H.V. Cert., Gen. Training and Cert. Midwife	"	"	"
"	.. Baker, E. M.	.. New H.V. Cert., Gen. Training and Cert. Midwife	"	"	"
Wanstead	.. Clarke, H.	.. New H.V. Cert., Gen. Training and Cert. Midwife	Yes	Yes	No
Colechester	.. Rickard, M. E.	.. New H.V. Cert., Gen. Training and Cert. Midwife	Yes	No	No

(e) Probationer Health Visitor.

Hornchurch	.. Threadkell, H.	.. Gen. Training and Cert. Midwife	Yes	Yes	Yes
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(f) Council Midwives.

Loughton	.. Quill, G. H.	.. Cert. Midwife	.. —	—	Yes
Buckhurst Hill	.. Bartter, R. S.	.. Cert. Midwife and R.S.I.	.. —	—	Yes

Dental Staff.**(a) Senior Dental Surgeon. (Whole-time).**

Name.	Qualifications.	District.
Donaldson, S. K.	.. L.D.S., R.F.P.S.	.. Chelmsford, Maldon, &c.

(b) District Dental Surgeons. (Whole-time).

Roberts, A. S.	.. L.D.S., R.C.S.	.. Dagenham.
Hendry, A. W.	.. L.D.S., R.C.S.	.. Lexden & Winstree and Tendring.
Whitmore, A. L. T.	.. L.D.S. (Birm.)	.. Woodford and Chingford.
Davis, D. T.	.. L.D.S., R.C.S.	.. Hornchurch.
Hackman, W. G. C.	.. L.D.S., R.C.S.	.. Romford and Dagenham.
James, N. A.	.. L.D.S., R.C.S.	.. Braintree and Saffron Walden, &c.
Hurley, D. W.	.. L.D.S., R.F.P.S. (Glas.)	.. Thurrock.
O'Callaghan, J.	.. L.D.S., R.C.S.	.. Dagenham.
Jones, F.	.. L.D.S.	.. Epping, &c.

(c) Dental Practitioners performing part-time duties for the County Council.

Weir, D. H., Weir, R. W., King, A. C., Lewis, D. F.

(d) Whole-time Dental Attendants.

Pidgeon, W. J., Dallison, R., Brown, M. E., Wittich, D., Martin, V. L. M., Luck, L. A., Lloyd, E. L., Gall, E. E., Jones, E., Nicholl, L. M., Polley, L.

Clerical Staff.

(a) Clerical Assistant .. L. Hey.

(b) Departmental Clerks .. H. J. Allsupp.
S. G. Clarke.

(c) Class I. Clerks .. P. T. Burdon.
P. H. Moth.
J. W. Hurst.

(d) Central Office.*Male Clerks.*

S. R. Shilton.
A. C. Guymner.
R. H. Dennison.
R. Porter.
E. Rich.
M. W. Stock.
R. W. Pye.
J. Branston.
A. H. Holmes.
L. Saich.
J. T. Hitching.
R. Haywood.
L. Osbon.

Female Clerks.

N. M. Chaplin.
E. Brazier.
I. M. Thomas.
Q. Nice.

Shorthand-Typists.

E. H. Scott.
P. C. Dewbury.
L. Brown.
E. M. Ward.
A. A. Tucker.
J. M. Wells.
M. J. Gosling.
K. Bloxham.
N. Crozier.

(e) Dispensary Clerks.*Male.*

A. E. Thornton.
L. M. E. Lamb.

Shorthand-Typists.

M. Bamberry.
R. Carrington.
P. E. Cork.

PART I.

ACREAGE AND POPULATION.

The area of the Administrative County as revised under Section 46 of the Local Government Act, 1929, is shown in the following table, which also sets out particulars of the Registrar-General's estimated population for the year 1936, compared with the census figures of 1931. The table gives as in previous years, the number of persons per acre, number of inhabited houses, number of families or separate occupiers, &c., and the rateable value :—

	REVISED AREAS.			No. of Persons per acre. (Calcu lated on 1931 Cens us).	No. of Acres per person. (1931 Census).	No. of in- habited houses (Census 1931).	No. of families or separate Occu- piers (Census 1931).	Registrar-General's Estimate, Normal Population, 1936.	Rate- able value, 1st April, 1936.
	Acres. Census 1931.	Population.						Population.	
		Census 1921.	Census 1931.						
Municipal Boroughs (9)	49,844	471,072	546,722	10.9	0.09	120,429	141,431	595,831	£9,174,422.
Urban Districts (23)	207,138	271,197	457,603	2.2	0.45	108,146	113,694	557,238	
Rural Districts (12)	702,482	170,246	184,679	0.3	3.80	49,898	50,425	191,391	
	959,464	912,515	1,189,004	1.2	0.80	278,473	305,550	1,344,460	

The product of a 1d. rate is estimated at £35,781.

SOCIAL CONDITIONS.

With its estimated population of 1,344,460, Essex is now one of the largest administrative counties in England and Wales. As a result of its proximity to London the southern half of the county is largely residential and industrial, but the northern half is mainly agricultural. The chief industries are engineering (electrical, wireless and agricultural), beet sugar, cement and brickmaking, breweries, asbestos, boot and shoe-making and the manufacture of artificial silk and motor cars.

Essex has not been affected to any great extent by unemployment, in fact, during 1936 there has been an improvement in those parts of the county where unemployment existed.

VITAL STATISTICS.

The total number of births, still-births, deaths, at all ages, &c., are set out in Table XXIII, in Part V of the Report. The chief vital statistics of the Administrative County compared with those for England and Wales during 1936, are set out below :—

	Essex.		England and Wales.	
	1932-1936.	1936.	1932-1936.	1936.
Birth-rate per 1,000 population	14·5	14·5	14·8	14·8
Death-rate „ „ „	9·9	9·9	12·0	12·1
Zymotic death-rate per 1,000 population ...	0·2	0·2	Not available.	
Infant mortality rate per 1,000 births	48	49	61	59

NOTIFICATION OF INFECTIOUS DISEASES.

A summary of the notification of infectious diseases in the various Sanitary Districts during 1936 is set out in Table XXV. on page 126. The table shows that 8,083 persons were notified to be suffering from infectious disease, compared with 8,913 in 1935. This reduction is chiefly due to the decrease in the number of cases of diphtheria and scarlet fever.

SCARLET FEVER. The number of cases notified was 3,521, in 1936 as against 4,483 in 1935, the number of deaths being 15 and 12 respectively for these two years.

DIPHTHERIA. It is pleasing to record a further decrease to 1,421 cases, as compared with 1,919 in 1935. The deaths again show a decline, the number being 73, as compared with 102 in 1935.

ENTERIC FEVER. Seventy-two cases were notified during the year whereas the number recorded during 1935 was 82. The deaths however, increased from 3 in 1935 to 10 during 1936.

SMALL POX. No case of Small Pox occurred during 1936.

CANCER.

Facilities available for the diagnosis and treatment of cancer are provided by the County Council at Oldchurch Hospital, Romford. Investigations and operative treatment are carried out by the resident and consultant staff and in addition, the service of a Specialist, Dr. Arthur Burrows, is engaged for Radiotherapy and treatment by Radium Emanation. Cancer Clinics and Tumour Clinics are not established in the area.

No definite arrangement exists between the County Council and local authorities for treating cancer and no organised services are provided in the County by Regional Radium Centres or Voluntary Hospitals. The tendency of the latter and of general practitioners is often to refer cancer patients if not to Oldchurch Hospital, to Radium Centres in London.

Negotiations with the British Empire Cancer Campaign are now nearing completion for the organisation of a panel of lecturers drawn from general practitioners, Medical Officers of Health and others, to impress upon the public the importance of the early treatment of cancer. In addition, it is intended to make a local investigation of histories of patients suffering from cancer as suggested by the Ministry of Health Circular 1136.

The following table sets out the deaths during the year 1936 from Cancer, malignant disease :—

Age period.	Borough and Urban Districts.	Rural Districts.	Total.
0—	1	—	1
1—	—	—	—
2—	2	—	2
5—	5	1	6
15—	4	1	5
25—	30	1	31
35—	90	15	105
45—	228	33	261
55—	401	94	495
65—	498	131	629
75—	318	92	410
	<hr/> 1577	<hr/> 368	<hr/> 1945

VENEREAL DISEASE.

The County Council continue to participate in the London and Home Counties Venereal Diseases Scheme whereby Essex patients attend for advice and treatment at many of the larger London Hospitals. Clinics are also available for Essex patients at the following :—

Chelmsford & Essex Hospital.
Essex County Hospital, Colchester.
East Suffolk & Ipswich Hospital.
Borough Sanatorium, Southend.
Ad hoc Clinic, Gravesend.

In addition, a number of patients from Essex found it convenient to attend at the Prince of Wales Hospital, Tottenham.

During the financial year ended 31st March, 1937, 89 necessitous patients were assisted by the County Council in payment of travelling expenses to and from the approved Venereal Diseases Clinics at a cost of £234 1s. 2d.

There are 50 medical practitioners whose experience in treating Venereal Diseases qualifies them to receive free supplies of Arseno-benzene Compounds for the treatment of early and infectious cases of Syphilis.

Table I on page 19 shows the attendances of Essex patients at the various clinics from which it will be noted that the total attendances decreased from 76,307 in 1935 to 67,092 in 1936, whereas the number of in-patient days increased from 2,750 in 1935 to 3,155 in 1936.

The hope expressed in the previous year's report that by the end of 1936 the new Venereal Diseases Clinic would be established at the Oldchurch Hospital, Romford, did not materialise for various unavoidable causes, but there is every possibility of the Clinic being established by the end of 1937.

TABLE I.

TREATMENT OF VENEREAL DISEASE, YEAR 1936.

Treatment Centre.	Patients from all Areas.	ESSEX PATIENTS							In-patient Days.	Hostels.	
		Total Number treated for first time suffering from					Total No. of Attendants of Essex Patients.				
		Total.			Not V.D.	Gonorrhoea.		Soft Chancre.			Syphilis.
		Syphilis.	Soft Chancre.	Gonorrhoea.							
London Hospitals	...	26077	106	13	416	643	1178	57394	3092	1117	
St. Bartholomew's, London...	...	952	—	—	3	6	9	42	—	—	
Chelmsford	...	29	1	—	12	16	29	785	—	—	
Colchester	...	141	20	—	43	76	139	3684	63	—	
Ipswich	...	175	3	—	1	4	8	124	—	—	
Southend	...	278	8	1	18	23	55	1085	—	—	
Gravesend	...	290	15	—	30	34	79	1637	—	—	
Tottenham	...	505	4	—	17	14	35	2341	—	—	
Total for 1936...	...	28,447	157	14	540	821	1532	67092	3155	1117	
Total for 1935...	...	30,727	181	23	612	769	1585	76307	2750	1466	
" 1934...	...	30,719	245	19	731	644	1639	72442	2663	1419	
" 1933...	...	31,116	303	20	774	613	1710	63368	3491	1307	
" 1932...	...	29,935	274	13	693	659	1639	53444	2288	2173	
" 1931...	...	27,970	281	30	580	564	1455	45007	2245	2416	

The resignation of Dr. Alfred Elliott from the staff of the Public Health Department in the middle of 1936 necessitated other arrangements being made for the Venereal Diseases Centre at the Essex County Hospital, Colechester, and accordingly as and from 1st July, 1936, Dr. J. G. Madden, of Tollesbury, was appointed to act temporarily as Medical Officer at that Centre.

At the end of the year 1936 a letter was received from the Ministry of Health, reminding the County Council of a previous communication in which it had been suggested that the Council should consider the advisability of appointing a Medical Officer possessing special experience in the modern methods of treating Venereal Diseases, who would devote the whole of his time to work in connection with the Scheme. In view of the impending establishment of a Clinic at Oldchurch Hospital, this was more than ever necessary, and therefore, as a result of a report submitted to the Council in 1937, approval was given to the appointment of a whole-time Medical Officer for this purpose. This Officer will assist the County Medical Officer in the supervision of the whole of the arrangements, diagnosis and treatment of Venereal Diseases in the County, including arrangements for equipping and running the new Venereal Diseases Clinic at Oldchurch Hospital and such other Clinics as may be opened in the near future. Moreover, useful work can be done by offering his services to Hospitals in the County and, in special cases, to general practitioners for consultations either in the doctor's surgery or at the patient's home. His services will also be utilised in certain cases in connection with the prevention and treatment of Ophthalmia Neonatorum.

VACCINATION.

During the year ended 31st December, 1935 (the latest period for which complete information is available), the Vaccination Officers' returns summarised in Table II show that 16,986 births were registered. Of these, 5,542 were successfully vaccinated, and in 8,791 instances a statutory declaration of conscientious objection was made. Of the remaining 2,653 births, 655 removed to places unknown; 456 removed to districts of other Vaccination Officers who were duly notified; in 144 cases vaccination was postponed by medical certificate; 42 proved insusceptible of vaccination, and 582 died un-vaccinated. At the end of the year 774 births remained which had not been entered in the vaccination register or temporarily accounted for in the report book.

With regard to the number of persons successfully vaccinated and re-vaccinated at the cost of the rates by Public Vaccinators and Medical Officers of Poor Law Institutions, the Clerk of the County Council has kindly forwarded to me the following information in respect to the year ended 30th September, 1936 :—

Numbers of successful Primary Vaccinations of persons :—			
(a) Under 1 year of age	..	..	4,602
(b) 1 year and upwards	..	..	674
(c) Total..	..	..	<u>5,276</u>

Number of successful re-vaccinations, <i>i.e.</i> , successful vaccinations of persons who have been successfully vaccinated at some previous time..	281
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TABLE II.

Guardians Committee Areas.	No. of Births in "Birth List Sheets" registered 1st Jan. to 31st Dec., 1935.	No. of these Births entered by 31.1.37 in Cols. I, II, IV and V of the "Vaccination Register" (Birth List Sheets), viz. :—					No. of Births which on 31.1.37 remained unentered in the "Vac- cination Register" on account of :—			No. of these Births remaining 31.1.37 neither entered in the "Vaccination Register" nor temporarily accounted for in "Report Book."	No. of Certificates of successful Primary Vaccination of Children under 14 received during 1936.	No. of Statutory Declarations of Conscien- tious objection received by V. O. during 1936.
		Col. I. Success- fully vacci- nated.	Col. II.		Col. IV. No. of Statu- tory Decla- rations.	Col. V. Died un- vacci- nated.	Postpone- ment by medical certifi- cate.	Removal to Districts the Vaccination Officer of which have been apprised.	Removal to places unknown and cases not found.			
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Braintree ..	700	268	2	—	385	29	1	5	10	—	250	391
Chelmsford ..	1,819	648	5	—	927	60	15	41	53	70	737	829
Colchester ..	2,003	764	5	—	1,064	78	3	30	51	8	778	1,023
Epping ..	516	249	1	—	212	17	4	11	18	4	260	209
Saffron Walden	425	260	4	—	135	12	1	5	5	3	256	156
Southern ..	6,174	1,821	17	—	3,096	246	65	181	247	501	2,739	3,337
South Eastern ..	1,801	461	3	—	926	45	17	129	101	119	624	1,046
South Western ..	3,548	1,071	5	—	2,046	95	38	54	170	69	1,507	2,007
	16,986	5,542	42	—	8,791	582	144	456	655	774	7,151	8,998

The Totals of the figures in columns 3 to 11 agree with the figure in Column 2.

Owing to the changing public attitude towards compulsory vaccination and the decrease in the number of vaccinations, a certain amount of hardship has been felt by Public Vaccinators, and from 1st January, 1937, the County Council increased the Scale of Fees payable to Public Vaccinators in certain cases in respect of vaccinations carried out at the home of the person vaccinated, as follows :—

	Urban.	Rural.
For each successful vaccination performed at the home of the person vaccinated	Increased from .. 5/- to 7/6	Increased from 6/6 to 8/6
For each successful re-vaccination performed at the home of the person re-vaccinated	Increased from .. 3/6 to 5/-	Increased from 5/- to 6/-

DENTAL TREATMENT.

Although the full-time Dental Service in the County is primarily a school dental service, the increasing use of the time of officers for other Public Health Services demonstrates the more intimate relation of Dentistry with Public Health.

The treatment of Public Health and Public Assistance cases has been carried out on Saturday mornings, during school holidays and at other times when it was not possible to hold school clinics. One session per month was allocated regularly to the Maternity and Child Welfare Service.

During 1936, over 200 sessions were devoted to Public Health and Public Assistance patients, divided over certain areas. This service is developing and during the year patients were treated as follows :—

	Patients.
Public Assistance	356 (see also page 118).
Tuberculosis	328 (see also page 92).
Maternity and Child Welfare ..	864 (see also page 99).
	<hr/>
	1,548
	<hr/>

(Fillings 300 ; Anæsthetics 976 ; Extractions 3,999 ; Other Operations 545 ; 414 Dentures were supplied, of which 174 were supplied by the whole-time staff.)

Apart from any financial consideration the Dental Surgeons' skill is considerably enhanced by the varied types of patients treated involving experience in all departments of the profession.

The Senior Dental Officer, Mr. S. K. Donaldson, L.D.S., has been of service as mediator between patient and private dental practitioner in certain cases to the satisfaction of all concerned, and been available to Assistant Dental Officers as an extra opinion in cases presenting unusual clinical features.

The dental profession has long been interested in the condition of stained and mottled teeth. The text books describe the condition as occurring in places as far apart as Essex, Sheffield district, the Rocky Mountains of Canada and a small area in

Wales. In this County it is usually described as an affliction of the Maldon area, but this defect occurs in other districts in the County, and particularly so in the Rochford area, and might well be described as Essex teeth. Throughout the year, wherever possible, Mr. Donaldson has given attention to this, and makes the following observations :—

“ One may say that the fringe only of this investigation can be touched. Our primary object is treatment, and Maldon teeth, as they are commonly termed, is a subject on which one would like to spend more time than one is at liberty to give. It has been suggested that Fluorides in excess in the water in these areas are a causative agent, but this was rather upset by an examination of the water in the Rochford area, where the evidence of staining and pitting was divided into two districts, being marked in one and absent in the other. Analysis of the water showed the fluorides present in the latter, but not in the former. This should receive further investigation.

Another factor which complicates the investigation of this condition is the re-organisation and distribution of the water supply in various districts. In many instances where inquiry is instituted it is found that the source of the water which may account for the condition in one member of the family has been changed, but the change is not always to the exclusion of the mottling condition and *vice versa*.

Very little more has been found except proof that a child born outside the affected area and coming into the district during the age of calcification of the teeth invariably shows the staining in some of the teeth at a level indicative of that age, whilst others born in the district and leaving, say, during the first year are immune except for the crowns of the six years old molars and perhaps the tips of the central incisors.

These teeth appear more resistant to decay and in the majority of cases when attacked it is of an extremely dry type. This very often is misleading and leaves one in doubt at times as to the treatment necessary. The teeth respond well to treatment and repair is lasting. It has also been noticed that the incidence of decay in the Maldon area is not so high as in many other areas in the County. Perhaps the explanation is in the willingness of parents to accept treatment, but on the other hand, it would appear that these teeth are not so prone to decay. These disfiguring conditions of teeth, particularly the incisors of girls, make one of the opinion that there will always be denture work for dentists until the causation can be found and steps taken to eliminate it.

It may well be argued that water (if water is really the cause of this condition) is unfit for consumption.

The condition is of great interest, both from the point of view of a dental officer whose duty is to protect his patients and also a dental officer scientifically interested, and to that end I am constantly on the look-out for any indication of the cause. I have discussed this with Mr. N. A. James, Dental Surgeon in the Braintree area, who states that from inquiry he finds that

where the water is from deep wells and the water is very hard, mottling is present in some degree, whilst, on the other hand, water from shallow or medium wells and soft in character, predisposes to extensive caries without mottling."

ISOLATION HOSPITALS.

Table III on page 24a shows the number of beds provided on the basis of 2,000 cubic feet per bed, the number of patients treated, and the cost per patient per week at each of the fifteen Isolation Hospitals which receive grants from the Essex County Council. Such grants are at the rate of £5 per annum per bed provided out of loan, plus £10 per annum in respect to each ambulance maintained by a Hospital in an efficient condition. In addition, grants at the rate of £2 10s. 0d. per bed, per annum, provided out of revenue were paid in respect to the hospitals at Colchester (40 beds), Dunmow (4 beds), Halstead (4 beds) and Orsett (48 beds).

There was a marked decrease in the number of patients treated in hospital, the figure falling from 5,597 in 1934-35 to 4,505 in 1935-36. Consequently, the average cost per patient increased from £22 10s. 1d. in 1934-35 to £29 3s. 3d.

As stated in the report for 1935, the County Council's Scheme under Section 63 of the Local Government Act, 1929, approved by the Minister of Health in June, 1935, provided for reducing the number of Hospital Authorities and Joint Hospital Boards from twenty to ten, so far as infectious diseases other than Smallpox were concerned. In eight out of the ten areas, provision has been or is being made in accordance with the Scheme. In the remaining two areas, Nos. 3 and 4, effect has not yet been given to the Scheme. A Public Inquiry by the Ministry of Health in respect to Area No. 3 is pending, and the general position in regard to Area No. 4 is receiving consideration.

Under the Scheme the Essex County Council is now an authority for providing accommodation for the treatment of cases of Smallpox occurring in the Administrative County, exclusive of the Borough of Colchester. By an agreement between the Essex County Council and the Corporation of Colchester, a Smallpox Hospital with 24 beds has been provided, adjacent to the Isolation Hospital situated in Mill Road, Mile End, Colchester. It was opened officially by the Chairman of the Essex County Council on 27th April, 1936.

The Essex County Council also had an informal arrangement with the London County Council under which the latter would receive Essex patients into their smallpox hospital so long as sufficient accommodation was available. Notice to terminate this arrangement has been received, and the London County Council has been approached with a view to securing a permanent arrangement.

EXAMINATION OF BACTERIOLOGICAL SPECIMENS.

Dr. Beale has kindly supplied the following report on the work undertaken during the year 1936 :—

TABLE III.

Showing Accommodation, Number of Cases treated, Cost per Bed, etc., at those Isolation Hospitals for which Grants for Beds provided out of Loan were recommended for the Year ended 31st March, 1936.

	Billericay.	Braintree.	Chelmsford.	Clacton.	Colchester.	Dunmow.	Halstead.	Ilford.	Maldon.	Rochford.	Romford.	Saffron Walden.	Thurrock.	Walthamstow.	Waltham Joint.	TOTAL.
Number for purpose of Grant ...	30	14	21	17	58	8	16	150	10	12	141	16	48	81	42	664
Grant from County Council ...	£170	£80	£115	£85	£300	£50	£90	£760	£60	£70	£725	£90	£270	£425	£230	£3520
<i>Cases treated during year :—</i>																
Diphtheria ...	63	17	7	4	53	15	4	155	35	17	699	1	78	184	53	1385
Scarlet Fever ...	119	33	268	24	178	26	10	267	51	57	638	124	137	454	118	2504
Typhoid ...	2	1	1	...	3	...	3	8	1	...	...	...	...	...	3	22
Other Diseases ...	19	1	16	6	*134	2	13	*200	3	...	142	3	47	*8	...	594
Total number of cases treated ...	203	52	292	34	368	43	30	630	90	74	1479	128	262	646	174	4505
Bed-Days ...	5165	†2548	6033	1663	16888	1560	674	31412	2517	2700	55461	3740	9597	18006	7880	165844
<i>Expenditure for the year :—</i>	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Repayment of Loans...	406 14 7	...	97 10 10	...	213 8 0	...	64 0 0	3546 3 7	38 1 1	40 1 8	2698 19 4	108 0 0	809 19 5	572 5 4	139 15 11	8734 19 9
Interest on loan ...	402 4 3	...	15 9 6	...	204 10 7	...	30 1 3	2983 4 9	10 1 1	20 5 1	4472 3 7	40 2 5	701 8 9	554 12 2	726 15 10	10160 19 3
Total ...	£ 808 18 10	...	113 0 4	...	417 18 7	...	94 1 3	6529 8 4	48 2 2	60 6 9	7171 2 11	148 2 5	1511 8 2	1126 17 6	866 11 9	18695 19 0
Structural Repairs ...	100 16 11	86 5 10	33 14 3	104 19 10	211 8 0	...	14 12 3	3347 4 3	94 13 11	49 3 8	2054 14 8	63 9 9	1163 0 2	1485 19 2½	52 14 9	8862 17 5
Food (Patients and Staff) ...	1879 3 2	591 8 0	534 1 10½	368 8 7	1116 9 2	260 14 3	196 2 8½	4403 7 3	375 9 2	481 14 9	6143 15 0	272 1 0	1772 19 5	3972 6 1	1014 19 0	23382 19 5
Estab. and Patients' Expenses ...	1869 15 10	1685 7 7	1956 10 10½	668 10 2	5008 19 3	543 16 8	1034 5 4½	16867 1 2	1664 3 0	1145 2 10	23875 7 6½	696 4 6	4825 6 4	12040 2 7	5448 8 2	80229 1 10
Maintenance...	3849 15 11	2363 1 5	2524 7 0	1141 18 7	7236 16 5	804 10 11	1245 0 3½	24617 12 8	2134 6 1	1676 1 3	32073 17 2½	1031 15 3	7761 5 11	17498 7 10½	6516 1 11	112474 18 8
Overhead Charges ...	808 18 10	...	113 0 4	...	417 18 7	...	94 1 3	6529 8 4	48 2 2	60 6 9	7171 2 11	148 2 5	1511 8 2	1126 17 6	866 11 9	18895 19 0
Total ...	£ 4658 14 9	2363 1 5	2637 7 4	1141 18 7	7654 15 0	804 10 11	1339 1 6½	31147 1 0	2132 8 3	1736 8 0	39245 0 1½	1179 17 8	9272 14 1	18625 5 4½	7382 13 8	131370 17 6
Cost per patient per week	£ 6 6 3	6 9 10	3 1 2	4 16 2	3 3 5	3 12 2	13 18 3	6 18 10	6 1 5	4 10 0	4 19 1	2 4 2	6 15 3	7 4 10	6 11 2	5 10 11
„ „ Food, Struct. and Estab. Ex. £	5 4 4	6 9 10	2 18 7	4 16 2	3 0 0	3 12 2	12 18 7	5 9 9	5 18 9	4 6 11	4 1 0	1 15 7	5 13 2	6 16 0	5 15 9	4 14 11
Cost per case treated, 1935-36	£ 22 19 0	45 8 10	9 0 8	33 11 9	20 16 0	18 14 2	44 12 8	49 8 10	24 5 0	23 9 4	26 10 8	9 4 4	33 7 10	28 16 7	42 9 7	29 3 3
„ „ year 1934-35	£ 24 11 9	21 16 8	13 6 1	20 12 1	13 1 2	26 16 8	40 11 7	37 3 0	14 13 1	12 13 11	22 6 3	17 4 7	18 9 4	25 7 10	20 4 11	22 10 1

* Includes Tuberculosis cases treated under the County Council scheme.

† Estimated, as actual figure not available.

The total number of specimens examined during 1936 was 28,157, which is an increase of 4,098 compared with the number received in 1935.

For convenience of description the specimens can be divided into the following 4 main Groups :—

Group A.

Samples of Water and Sewage Effluent ..	Total number	603
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Group B.

Samples of Milk, Ice Cream and Foods ..	Total number	1,010
---	--------------	-------

Group C.

Pathological Specimens received from Infectious Diseases Hospitals and San- atoria, Medical Officers of Health and Medical Practitioners	Total number	25,410
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Group D.

Pathological Specimens received from County Hospitals and Public Assistance Institutions	Total number	1,134
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Group A. Samples of Water and Sewage Effluent.

The samples of this Group consisted of the following :—

(1) Samples of Drinking Water	337
(2) Samples of Sewage Effluent, Trade Waste and River Water	221
(3) Samples of Swimming Bath Water ..	45
...	
Total	603

The number of samples in this Group shows an increase of 224 over that of 1935. Samples of drinking water collected by the County Sanitary Inspectors from Dairy Farms and samples of Sewage Effluent account mainly for this increase, the remainder being made up of samples of Public Water Supplies, &c., submitted by Medical Officers of Health and Sanitary Inspectors throughout the Administrative County.

All samples of water were submitted to chemical analysis and bacteriological examination. Samples of Sewage Effluent and Trade Waste, however, were examined chemically only except in special cases.

The samples indicated that the Public Water Supplies of the County maintain a satisfactory standard of purity and there appears no evidence that water was responsible for any ill-health among the consumers.

As would be expected, the samples of water from private well and spring supplies to Dairy Farms in Rural Areas are not uniformly of the desired standard of purity, but often they can be rendered so by constructional improvements or the installation of simple methods of purification.

TABLE IV.

SHEWING NUMBER AND TYPE OF PUBLIC HEALTH SPECIMENS EXAMINED
BY THE BACTERIOLOGIST FOR ESSEX—YEAR 1936.

SANITARY DISTRICTS.	Diph- theria.	Sputa.	Typhoid.	Ring- worm.	General.	Milk and Ice Cream.	Water.	Sewage.	Total Specimens examined.	Virulence Tests for Diph- theria and Tubercle.
URBAN—										
Barking B. ...	+2062	‡230	29	..	163	78	7	...	2589	11
Benfleet ...	77	17	...	...	9	45	11	...	159	...
Billericay ...	+467	488	8	4	47	2	...	...	1016	...
Braintree & Bocking	245	+49	2	1	51	6	5	...	359	...
Brentwood ..	160	‡77	1	...	21	25	13	7	304	...
Brightlingsea ...	2	3	1	...	...	...	3	...	9	...
Burnham-on-Crouch	4	9	1	...	1	...	...	...	15	...
Canvey Island ...	33	13	...	...	...	5	2	3	56	...
Chelmsford B. ...	63	‡92	7	...	63	6	...	...	231	...
Chigwell ...	43	48	3	...	29	34	...	...	157	...
Chingford ...	+204	+295	33	1	68	9	2	...	612	...
Clacton-on-Sea ...	107	+41	1	...	3	79	...	...	231	...
Colchester B. ...	6	+163	23	...	4	4	...	...	205	2
Dagenham ...	572	+567	3	19	56	123	...	...	1310	...
Epping ...	+95	46	4	...	26	4	2	4	181	...
Frinton & Walton	6	12	...	...	10	10	2	..	40	...
+ Grays ...	97	+24	...	...	2	...	...	...	123	...
Halstead ...	+53	+22	6	2	12	...	1	...	96	...
Harwich B. ...	35	+42	1	3	4	...	...	...	85	1
Hornchurch ...	287	+1718	8	3	39	41	1	...	210	..
Ilford B. ...	+530	+842	107	...	3238	126	26	2	4871	11
Leyton B. ...	+2014	+508	5	6	38	...	9	...	2580	7
Maldon B. ...	241	+35	6	1	27	13	14	...	337	...
+ Purfleet ...	18	6	1	...	3	...	...	...	28	..
Rayleigh ...	13	31	1	1	2	4	1	...	43	...
Romford ...	+246	+297	9	10	77	72	4	...	715	4
Saffron Walden B.	13	+7	...	...	17	...	...	...	37	...
+Thurrock ...	+335	152	10	10	16	22	2	...	547	...
+ Tilbury ...	12	12	...	24	2	...	...	...	50	...
Waltham Holy Cross	595	15	1	...	35	...	...	...	446	1
Walthamstow B.	145	‡546	54	52	647	18	2	...	1464	1
Wanstead & Woodford	329	‡400	9	...	53	69	...	...	860	...
West Mersea ...	114	5	...	...	1	6	...	...	126	...
Witham ...	80	31	1	...	7	...	3	...	122	...
Wivenhoe ...	6	2	...	...	1	8	1	...	18	...
Total ...	9129	6840	335	137	4772	812	111	16	22152	38
RURAL—										
Braintree ...	+325	‡1398	3	2	362	1	3	...	2094	16
Chelmsford ...	+101	62	4	...	9	14	6	...	196	...
Dunmow ...	+59	‡23	...	...	21	23	11	...	137	1
Epping... ..	79	41	8	1	23	18	...	5	175	...
Halstead ...	58	30	7	4	10	...	12	...	121	...
Lexden & Winstree	144	23	1	...	3	34	10	...	215	1
Maldon ...	+47	16	...	1	1	16	6	...	87	...
Ongar ..	46	13	...	1	27	37	2	...	126	...
+ Orsett ...	+13	6	...	...	6	...	...	...	25	...
Rochford ...	+224	30	...	...	2	...	...	...	256	...
Saffron Walden	16	25	3	...	12	16	1	...	73	2
Tendring ..	27	‡31	...	4	16	11	10	...	99	...
Totals— Rural	1139	1698	26	13	492	170	61	5	3694	20
Urban	9129	6840	335	137	4772	812	111	16	22152	38
Adminis. County	10268	8538	361	150	5264	982	172	21	25756	58
Specimens of Urine L.G. & O.O. Sup. Scheme									427	
									26183	

NOTE.—The above figures do not include specimens submitted from the Oldchurch Hospital, Romford, see page 35.

↑ Includes specimens taken at Isolation Hospital in district.

†	"	"	Sanatoria or Dispensary.
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These figures relate to 3 months ended 31st March, 1936.

†† " " 9 " 1st April to 31st December, 1936.

Sewage Effluents and Trade Wastes discharged into watercourses are required to comply with two prescribed standards, that is :—

- (a) Suspended matter not to exceed 2.1 grains per gallon.
and
- (b) Impurity figure not to exceed 10.0 grains per gallon.

On this basis, the samples examined can be classified as follows :—

Satisfactory	..	..	..	..	60%
Unsatisfactory	..	..	..	..	34%
Borderline (<i>i.e.</i> , failing either standard by a small margin)	..	..	..	..	6%

The analysis of the samples of Swimming Bath water have shown that the enclosed swimming pools in the County generally maintain a high standard of purity, which is only possible by the careful control and operation of adequate purification plant.

Bathing Places situated on rivers are less satisfactory, since the water in streams which are classified as "clean" are seldom bacteriologically pure, and, in my opinion, swimming should be promoted and encouraged in the County by the generous provision of artificially constructed pools equipped with continuous circulation, purification and sterilisation plant, since a satisfactory bacterial condition of the water can only be maintained by such means.

Group B. Samples of Milk, Ice Cream and Foods.

808 Samples of Milk were examined bacteriologically, compared with 291 samples in 1935. They consisted of :—

- (1) Ordinary or Ungraded Milk .. 512 samples.
- (2) Graded Milk 296 samples.

The examinations to which the 512 samples of ordinary raw milk were submitted consisted of :—

- (a) Enumeration of total bacteria ;
and
- (b) Examination for *Bacillus Coli* ;

and the milks were considered of satisfactory cleanliness if the bacterial count did not exceed 200,000 per c.c. and *Bacillus Coli* was absent from 0.001 cubic centimetre. The results obtained were :—

Satisfactory	..	..	..	430 = 84%
Unsatisfactory	..	..	..	82 = 16%

Compulsory pasteurisation of all milk which, in my opinion, is one of the measures necessary to ensure a clean and safe milk supply, has not been prescribed in spite of the abundant evidence in its favour and the application to Parliament of certain Municipal Authorities who have suffered from epidemic disease as a result of milk infection for powers to enforce pasteurisation in the areas under their administration.

The results of the examinations of the samples of Graded Milk were as follows :—

Pasteurised Milk.

Total number—105.

Satisfactory	..	..	..	103 = 98.1%
Unsatisfactory	..	..	..	2 = 1.9%

Grade "A," Accredited and Tuberculin Tested Milk.

Total number—127.

Satisfactory	..	..	..	125 = 98.5%
Unsatisfactory	..	..	..	2 = 1.5%

Certified and Tuberculin Tested (Pasteurised) Milk.

Total number—8.

Satisfactory	..	..	..	8 = 100%
Unsatisfactory	..	..	..	0 = 0%

One sample of milk suspected as a possible cause of a food poisoning outbreak was submitted to special examination for Salmonella Bacteria, &c., but no pathogenic bacteria were found.

Milk in Schools Scheme.

56 samples of "School" milk were examined and 6 or 10.7% failed to comply with the required standards which were those prescribed for Grade "A" Milk.

I strongly recommend that all milk supplied under the "Milk in Schools Scheme" should be tuberculin tested (Pasteurised) Milk.

Ice Cream.

200 samples of Ice Cream were examined and based on the standard that the bacterial content should not exceed 100,000 per millilitre, 41 or 20.5% were unsatisfactory.

Tubercle Bacilli in Milk.

No examinations for Tubercle Bacilli in Milk have been carried out since separate laboratory facilities for this work are now available.

Other Foods.

One sample of Oysters was examined bacteriologically and proved to be clean.

One sample of Canned Soup was examined bacteriologically with special reference to the presence of Salmonella Bacteria, but it proved to be sterile.

Group C. Pathological Specimens.

The total number of Pathological Specimens in this Group was 25,410, but a number was submitted to various different examinations as outlined below :—

(1) <i>Swabs from Throat, Nose, Ear, etc.</i>	13,942
---	----	----	--------

These specimens are mostly submitted in connection with Diphtheria and Scarlet Fever and are examined culturally for Klebs-Loeffleur Bacilli or Hæmolytic Streptococci and microscopically for the Organisms of Vincent's Angina, etc., as required.

(a) Swabs examined culturally for Diphtheria Bacilli only	10,268
---	----	----	----	----	--------

Many of these were also examined directly by microscopical method.

908 or 8.8% of these swabs gave positive results.

Animal Inoculation Tests for Virulence were carried out on 37 cultures, of which 24 proved virulent.

(b) Swabs submitted to general bacteriological examination, microscopical and cultural	..	3,674
--	----	-------

These specimens consisted of the following :—

(1) Throat Swabs	..	..	..	1,783
(2) Nose Swabs	..	..	..	1,199
(3) Ear Swabs	..	..	..	50
(4) Breast Swabs	..	..	..	377
(5) Skin Swabs	..	..	..	5
(6) Unlabelled	..	..	..	235
(7) Swabs specially for Meningococci	..	..	..	25

The majority of these specimens were sent primarily for examination for Streptococci and Staphylococci. Streptococci when found were differentiated into Hæmolytic and Non-Hæmolytic strains.

Approximately 3,000 of the swabs in this Group were submitted by one Local Authority primarily for examination for Staphylococci in connection with the occurrence of infective conditions amongst the inmates of a Maternity Home.

(2) <i>Specimens in connection with Puerperal Fever</i>	..	170
---	----	-----

In addition to many swabs from Throat, Nose, Breast, etc., included under Paragraph 1, the following specimens were examined in connection with Puerperal infections :—

(1) Vaginal, Uterine Discharges, Cervical Swabs, etc.	..	..	..	..	155
(2) Eye Discharges and Swabs	..	..	..	..	15

These specimens were submitted to the following examinations :—

- (a) Microscopical Examination.
- (b) Bacteriological Examination—Cultural.
- (c) Classification of Streptococci when found into Hæmolytic and Non-Hæmolytic Groups.

(3) *Specimens of Sputum.*

The total number of specimens of sputum examined was 8,579, as follows :—

(a) Specimens examined microscopically for Tubercle Bacilli	8,579
(b) Specimens examined by general microscopical and bacteriological method—cultural ..	41

All specimens of sputum are examined by concentration methods before a negative result for Tubercle Bacilli is given.

(4) *Specimens of Pus.*

The total number of specimens under this heading was 173, and the examinations to which they were submitted were as follows :—

(a) General Microscopical Examination ..	173
(b) Microscopical Examination for T.B. ..	161
(c) Bacteriological Examination—Cultural ..	162
(d) Animal Inoculation Tests for T.B. ..	3

(5) *Specimens of Urine.*

The total number of specimens of urine examined was 1,283, which is more than twice the number examined in 1935. This abnormal annual increase is largely accounted for by specimens collected from the County Staff in connection with the Superannuation Scheme, in which category there were 427 specimens.

The examinations to which the specimens were submitted were as follows :—

(a) Chemical Analysis	1,170
(b) General Microscopical Examination ..	1,225
(c) Microscopical Examination for T.B. ..	828
(d) Bacteriological Examinations—Cultural ..	343
(e) Animal Inoculation Tests for T.B. ..	9

Of the 828 specimens examined for Tubercle Bacilli, 93 or 11.2% gave positive results and the majority of these were from patients under treatment for Tuberculosis in the County Sanatoria.

6 of the 9 specimens submitted to Animal Inoculation Tests for Tubercle Bacilli gave positive results.

47 of the specimens examined culturally were especially submitted for examination for Typhoid-Paratyphoid Bacilli and one showed the presence of Typhoid Bacilli.

(6) *Specimens of Faeces.*

The total number of specimens was 285, which were examined as follows :—

(a) General Microscopical Examination for abnormal constituents, cells, parasites, ova ..	22
(b) Microscopical Examination for Tubercle Bacilli	128
(c) Bacteriological Examination—Cultural ..	116
(d) Occult Blood Reaction	12
(e) Triboulets Reaction	51

Of the 114 specimens examined culturally, 107 were sent for examination for Typhoid-Paratyphoid—Dysentery Bacilli, and 8 were found to contain Paratyphoid Bacilli. 3 specimens gave positive results for Tubercle Bacilli.

(7) *Specimens of Cerebro-Spinal and other Body Fluids.*

The total number of specimens was 136, consisting of the following :—

(1) <i>Cerebro-Spinal Fluid</i>	43 specimens.
(a) Cytological Examinations.. ..	39 „
(b) Chemical Examinations	39 „
(c) Microscopical Examination for Tubercle Bacilli	39 „
(d) Bacteriological Examination—Cultural	42 „
(2) <i>Pleural Fluid</i>	75 specimens.
(a) Cytological Examinations.. ..	74 „
(b) Chemical Analysis	1 „
(d) Microscopical Examination for Tubercle Bacilli	74 „
(d) Bacteriological Examination—Cultural	74 „
(3) <i>Other Fluids</i>	18 specimens.

These consisted of specimens of fluid from abdomen, joints, etc., and were examined as follows :—

(a) Cytological Examinations.. ..	18 specimens.
(b) Microscopical Examination for Tubercle Bacilli	17 „
(c) Bacteriological Examination—Cultural	17 „

Animal Inoculation Tests for Tubercle Bacilli were carried out on 4 specimens of Pleural Fluid and 2 specimens of Peritoneal Fluid.

(8) *Specimens of Blood.*

The total number of specimens of Blood was 622 and the various examinations required were as follows :—

(a) Cultural Examination	40
(b) Agglutination Reactions	222
(1) Typhoid-Paratyphoid Group	211
(2) Melitensis Group	13
(3) Dysentery Group	14

(c) Blood Films for Differential Cell Counts	..	75
(d) Blood Films for Malarial Parasites	..	2
(e) Estimation of Blood Sugar	..	50
(f) Estimation of Blood Urea	..	233

It is of interest to record that one of the specimens examined for Malarial Parasites gave a positive result. This patient suffered a typical attack of Malaria and there was no evidence that the disease was contracted out of Essex.

Two similar cases occurred in Essex during 1935.

According to the Annual Report for the year 1935 of the Chief Medical Officer of the Ministry of Health, about 80 of such cases have occurred in Great Britain during the past 18 years, *i.e.*, an average of approximately 4 per annum. The prevalence in Essex would seem, therefore, to be above that of most counties, possibly due to its proximity to the London Docks.

(9) *Specimens of Hair and Skin Scrapings.*

The number of specimens examined was 107, of which 41 or 38% showed the presence of Ringworm Fungus.

(10) *Specimens of Tissue.* ..

The number of specimens of tissue examined histologically was 37. Slides of the sections were supplied on several occasions by request.

(11) *Preparation of Autogenous Vaccines.*

Six Autogenous Vaccines were prepared from bacteria isolated from specimens of pus.

(12) *Animal Inoculation Tests.*

The total number of specimens under this heading was 55, which consisted of the following :—

(a) Virulence Tests for Diphtheria Bacilli	..	37
(b) Urine for Tubercle Bacilli	..	9
(c) Pleural and other Fluids for Tubercle Bacilli	..	6
(d) Pus for Tubercle Bacilli	..	3

Group D. Specimens from Oldechurch Hospital and Public Assistance Institutions.

The total number of specimens in this Group was 1,134, a decrease of 811 compared with 1935, owing to the establishment of a laboratory at Oldechurch Hospital.

These specimens were distributed as follows :—

Oldechurch Hospital	..	..	412
Public Assistance Institutions	..	..	722

The character of these specimens and the examinations to which they were submitted were as follows :—

(1) <i>Specimens of Blood</i>	54
(a) Estimation of Blood Sugar	1
(b) Estimation of Blood Urea	24
(c) Blood Cell Counts and Hæmoglobin Estimations	10
(d) Blood Culture	6
(e) Agglutination Reactions	13
(1) Typhoid-Paratyphoid Group :	12
(2) Melitensis-Abortus Group :	2
(2) <i>Specimens of Fæces</i>	128
(a) General Microscopical Examination	25
(b) Microscopical Examination for Tubercle Bacilli	51
(c) Bacteriological Examination—Cultural	98
(d) Occult Blood Reaction	7
(e) Triboulets Reaction	2
(f) Fat Estimation	2
(g) Lead Estimation	1
(3) <i>Specimens of Urine</i>	284
(a) General Microscopical Examination	220
(b) Microscopical Examination for Tubercle Bacilli	136
(c) Chemical Analysis	212
(d) Bacteriological Examination—Cultural	36
(e) Aschheim-Zondek Test for Pregnancy	64
(f) Animal Inoculation Tests for Tubercle Bacilli	2
(4) <i>Specimens of Cerebro-Spinal Fluid</i>	15
(a) Cytological Examination	15
(b) Chemical Analysis	15
(c) Microscopical Examination for Tubercle Bacilli	14
(d) Bacteriological Examination—Cultural	15
(5) <i>Specimens of Pleural and other Body Fluids</i>	7
(a) Cytological Examination	7
(b) Microscopical Examination for T.B.	7
(c) Bacteriological Examination—Cultural	5
(d) Animal Inoculation Test for T.B.	3
(6) <i>Specimens of Pus</i>	10
(a) General Microscopical Examination	10
(b) Microscopical Examination for Tubercle Bacilli	8
(c) Bacteriological Examination—Cultural	9

(7) <i>Specimens of Sputum</i>	425
(a) Microscopical Examination for Tubercle Bacilli	425
(b) General Microscopical Examination ..	32
(c) Bacteriological Examination—Cultural ..	24
(8) <i>Swabs from Throat, Nose and Ear</i>	132
(a) Cultural Examination for Diphtheria Bacilli	113
(b) General Microscopical Examination ..	15
(c) General Bacteriological Examination ..	33
(d) Cultural Examination for Meningococci ..	16
(e) Animal Inoculation Test for Diphtheria Bacilli	7
(9) <i>Specimens of Uterine and Urethral Discharges</i> ..	24
(a) General Microscopical Examination ..	22
(b) Microscopical Examination for Tubercle Bacilli	4
(c) Bacteriological Examination—Cultural ..	21
(10) <i>Specimens of Hair and Skin Scrapings</i> ..	2
These Specimens were examined microscopically for Ringworm Fungus.	
(11) <i>Specimens of Tissue</i>	51
Histological Examinations for Malignant Disease, Tuberculosis etc., were carried out on these specimens.	
(12) <i>Animal Inoculation Tests</i>	76
(a) Aschheim-Zondek Test for Pregnancy— Samples of Urine	64
(b) Virulence Tests for Diphtheria Bacilli ..	7
(c) Body Fluids for Tubercle Bacilli ..	5

It is evident from the above figures that increasing advantage is being taken of the County Laboratory facilities and the extent of this is shown in the following Table in which the figures have been summarised in the respective Groups for 1935 and 1936 respectively.

From this it will be seen that in one year :—

- (a) Samples of Water have increased by 224 or 59%.
- (b) Samples of Milk and Ice Cream have increased by 718 or 246%
- (c) Pathological Specimens have increased by 3,156 or 13%.

Group A.

	1935.	1936.
Samples of Water, Sewage Effluents and Swimming Bath Waters ..	379 ..	61

Group B.

Samples of Milk, Ice Cream and other

Foods	292 ..	1,010
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Group C.

Pathological Specimens from Medical

Officers of Health, Medical Prac-

titioners	21,446 ..	25,410
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Group D.

Pathological Specimens from Old-

church Hospital and Public Assist-

ance Institutions	1,942 ..	1,134
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LOCAL GOVERNMENT ACTS, 1929 & 1933.

SECTION 46 (1929). REVIEW OF COUNTY DISTRICTS. As indicated in the Annual Report for 1935, the County Review under this Section was completed with the formation of the Thurroek Urban District as and from 1st April, 1936.

SECTION 57 (1929). Full details of the County Scheme for making contributions to District Councils were given in the Report for 1934. During the year, schemes for water supplies and sewerage and sewage disposal were submitted by the undermentioned Local Sanitary Authorities; the grants shown below were approved, or the schemes were regarded as eligible under the Section 57 Scheme:—

Sanitary District.	Parish.	Purpose.	Grant.
Duninow Rural ..	Hatfield Broad	Water Supply ..	Increased from £1,250 to £1,300.
	Oak, Great Hallingbury, Little Hallingbury		
Ongar Rural ..	Blackmore, Doddinghurst	Water Supply ..	Increased from £150 to £300.
Ongar Rural ..	Navestock ..	Water Supply ..	Increased from £150 to £250.
Ongar Rural ..	Stondon Massey ..	Water Supply ..	£100.
Braintree Rural	Eastern Area ..	Water Supply	Eligible for Scheme (£1,700 grant from Ministry of Health).
		Cost £37,360	
Braintree Rural	Cressing, Black Notley, White Notley	Sewerage and sewage disposal.	Eligible for Scheme. Additional grant 16 $\frac{2}{3}$ per cent., not exceeding £6,387, subject to the Rural District Council receiving into the sewers the whole of the sewage from the Black Notley Sanatorium.
		Cost £38,320	

During the financial year 1935-36, contributions were paid to Local Authorities whose schemes were eligible under the Section 57 Scheme as follows :—

	£
Braintree Rural	525
Halstead Rural	167
Saffron Walden Rural	977

During the financial year, 1936-37, contributions were paid as follows :—

	£
Braintree Rural	1,578
Dunmow Rural	1,525
Halstead Rural	680
Saffron Walden Rural	2,647

SECTION 111 (1933). In the Annual Report for 1934, full particulars were included of the County Scheme under this Section, adopted on 3rd July, 1934, under Section 58 of the 1929 Act now repealed by the 1933 Act.

As and from 1st August, 1936, Dr. P. P. Fox was appointed the first whole-time Medical Officer for the Borough of Harwich and for the Port of Harwich, with Dr. Phelan as Assistant Medical Officer of Health for the Port and Medical Inspector of aliens.

In respect to the Chigwell Urban District, the post of Medical Officer of Health became vacant owing to the death of Dr. A. Butler Harris in August, 1936. In view of various local considerations, the County Council raised no objection to the temporary appointment of Dr. C. R. Dykes as part-time Medical Officer of Health for a period of two years.

HOUSING.

Table V on page 36a gives particulars of the work carried out under the Public Health and Housing Acts by the Local Sanitary Authorities during the year 1936. The principal items included in that table are compared below with the figures for the year 1935 :—

	1935.	1936.
No. of new houses erected	14,180	14,316
No. of houses inspected for housing defects	33,586	36,974
No. of inspections made for the purpose	91,399	91,231
No. of houses found to be totally unfit for human habitation	842	2,067
No. of houses found not to be in all respects reasonably fit for human habitation	15,226	15,011
No. of houses rendered fit in consequence of informal action	13,188	12,078

RURAL DISTRICTS. The Housing Act, 1936, which came into force on 31st July 1936, is an Act to consolidate the Housing Acts, 1925 to 1935, and certain other enactments relating to housing. The special provisions as to Rural Districts are contained

SHOWING PARTICULARS OF WORK CARRIED OUT BY LOCAL SANITARY AUTHORITIES UNDER THE PUBLIC HEALTH AND HOUSING ACTS DURING THE YEAR 1936.

TABLE V.

NEW HOUSES ERECTED DURING 1936.					INSPECTION OF DWELLING HOUSES DURING THE YEAR.							No. of defective Dwelling Houses rendered fit in consequence of informal action by the Local Authority or their Officers.		ACTION UNDER STATUTORY POWERS.				HOUSING ACT, 1935—OVERCROWDING.									
SANITARY DISTRICT.	Total.	By			(a) Total No. inspected for Housing Defects under Public Health or Housing Acts.	(b) No. of Inspections made for the purpose.	(c) No. of Dwelling Houses included under sub-head (a) which were inspected and recorded under Housing Consolidated Regs., 1925.	(d) No. of Inspections made for the purpose.	(e) No. found to be in a state so dangerous or injurious to health as to be unfit for human habitation.	(f) No. (excluding those referred to under (e)) found not to be in all respects reasonably fit for human habitation.	PROCEEDINGS UNDER SECTIONS 17, 18 AND 23 OF THE HOUSING ACT, 1930.			PROCEEDINGS UNDER PUBLIC HEALTH ACTS.		PROCEEDINGS UNDER SECTIONS 19 & 21 OF HOUSING ACT, 1930.		PROCEEDINGS UNDER SECTION 29 OF HOUSING ACT, 1930.		No. of Dwelling Houses Overcrowded at the end of the year.	No. of families dwelling therein.	No. of persons dwelling therein.	No. of new cases of overcrowding reported during the year.	No. of cases of overcrowding relieved during the year.	No. of persons concerned in such cases.		
		The Local Authority	Other Local Authorities	Other Bodies or Persons.							No. of Dwelling Houses in respect of which Notices were served requiring Repairs.	No. of Dwelling Houses which were rendered fit after service of formal Notices.	No. of Dwelling Houses in respect of which Notices were served requiring defects to be remedied.	No. of Dwelling Houses in which defects were remedied after service of formal Notice.	No. of Dwelling Houses in respect of which Demolition Orders were made.	No. of Dwelling Houses demolished in pursuance of Demolition Orders.	No. of separate Tenements or Underground Rooms in respect of which Closing Orders were made.	No. of separate Tenements or Underground Rooms in respect of which Closing Orders were determined, the Tenement or Room having been rendered fit.									
URBAN.																											
BARKING B.	401	..	132	269	3181	9666	1116	2383	167	2472	1749	112	132	6	244	241	7	4	..	..	297	331	2062½	45	169	1355
BENFLEET	343	..	..	343	285	620	187	225	7	98	65	1	2	..	14	12	..	3	2	..	1	1	9	1	11	60
BILLERICAY	516	6	..	510	1401	1927	368	716	15	169	6	132	71	..	185	173	..	5	11	..	138	140	832½	4	26	143	
BRAINTREE & BOCKING	126	38	..	88	181	181	67	67	51	42	3	..	..	..	3	2	..	2	1	..	24	24	212	27	3	11
BRENTWOOD	298	16	..	282	189	865	41	119	18	56	41	..	..	..	1	1	..	14	8	..	43	47	325	2	25	144
BRIGHTLINGSEA	47	..	..	47	31	31	23	23	..	23	26	..	..	..	8	8	..	..	..	..	4	4	25	..	2	15½
BURNHAM-ON-CROUCH	33	12	..	21	120	150	120	150	3	15	15	..	..	..	..	..	..	3	11	..	3	3	27	..	..	..
CANVEY ISLAND	234	2	..	232	118	506	87	440	6	85	53	14	6	..	2	2	..	5	4	..	9	9	49	5	10	47	
CHELMSFORD B.	388	..	..	388	1023	1894	..	..	4	22	22	..	..	..	310	352	..	1	..	..	80	80	622	..	13	93
CHIGWELL	681	4	..	677	138	764	76	436	..	62	116	3	3	..	..	..	..	..	..	..	26	26	191	4	13	83
CHINGFORD	755	..	..	755	942	2512	110	807	..	75	265	1	..	5	8	8	..	..	..	..	58	61	372	10	5	32
CLACTON-ON-SEA	511	..	..	511	680	1514	96	251	8	144	106	..	..	..	6	2	..	..	..	..	10	10	72½	..	8	53½
COLCHESTER B.	347	54	..	293	1267	5530	481	3706	67	998	851	69	38	6	44	25	4	43	83	1	171	181	1272	25	26	128	
DAGENHAM	966	93	202	671	2011	4615	1559	2928	6	502	542	..	1	..	6	11	..	4	2	..	808	812	5478	25	233	1559	
DEPPING	55	28	..	27	39	116	..	..	..	39	10	17	17	..	12	12	..	..	..	..	10	10	67½	..	8	48
FRINTON & WALTON	126	..	..	126	161	209	37	53	13	58	34	4	4	..	7	7	..	1	..	..	3	3	18	..	13	71
HALSTEAD	55	42	..	13	233	787	74	74	30	159	77	80	68	..	..	..	..	30	22	..	22	22	124	..	..	..
HARWICH B.	52	..	..	52	96	419	65	65	1	26	13	..	..	1	..	..	..	1	3*	2	46	46	274	46	..	..
HORNCHURCH	1397	10	..	1387	528	1477	173	543	24	297	184	..	..	..	16	12	..	13	5	..	71	72	555	2	48	291
ILFORD B.	2302	..	..	2302	1426	3179	347	1735	19	775	682	253	186	..	18	3	..	5	5	..	123	130	884½	295	172	1046½
LEYTON B.	106	..	..	*106	3640	13100	980	3825	54	1558	1751	..	..	1	45	40	..	19	14	..	558	597	3557½	548	..	..
MALDON B.	71	43	..	28	329	724	137	349	12	102	61	41	38	1	9	9	..	9	9	2	16	18	103	..	1	8	
RAYLEIGH	109	..	..	109	75	166	35	92	2	37	12	..	..	..	..	..	..	1	..	..	8	8	53	26	18	140
ROMFORD	880	100	..	780	398	1117	118	295	21	378	322	..	..	..	2	..	..	19	21	..	48	48	341	62	14	87
SAFFRON WALDEN B.	20	..	..	20	471	715	64	224	56	8	8	..	..	..	1	1	..	..	..	..	34	34	191	..	..	..
THURROCK	573	27	..	546	1494	3837	335	1282	..	1221	834	119	82	1	73	57	..	20	9	..	111	120	970	1	220	1574	
WALTHAM HOLY CROSS	31	..	..	31	157	194	45	53	..	60	63	3	2	..	..	..	..	1	1	..	27	27	196	..	4	27
WALTHAMSTOW B.	274	22*	..	†252	3697	13189	715	2583	25	2398	2222	82	70	..	22	22	..	7	3	..	622	622	4225	660	38	280	
WANSTEAD AND WOODFORD	839	..	..	839	900	3572	436	1913	..	645	506	65	4	..	46	19	13	..	..	..	30	30	216	1	30	172
WEST MERSEA	33	..	..	33	252	252	46	46	..	15	15	..	..	..	..	..	..	..	..	..	3	3	22	..	1	7
WITHAM	91	40	..	51	722	722	241	241	173	27	2	12	..	..	..	..	..	7	..	1	4	4	32	14	10	71
WIVENHOE	10	..	..	10	259	529	..	..	8	20	44	..	..	..	..	..	..	8	8	..	2	..	14	..	..	..
URBAN TOTAL	12670	537	334	11799	26444	75079	8179	25624	790	12586	10700	1008	724	21	1082	1019	24	225	222	7	1	3410	3525	23393	1778	1121	7546½
RURAL.																											
BRAINTREE	127	88	..	39	1099	1240	1041	1221	514	443	182	..	..	..	17	..	..	38	18	..	20	20	149	..	14	116
CHELMSFORD	255	28	..	227	172	686	86	342	22	97	67	..	..	..	24	47	..	13	9	..	101	102	668½	104	3	18
DUNMOW	125	22	..	103	1539	1970	1284	1715	422	510	37	..	..	..	..	..	..	25	2	..	87	87	597	..	..	..
DEPPING	195	34	..	161	458	1759	406	1667	5	285	267	..	..	..	..	..	..	3	2	..	21	21	164	69	48	301
HALSTEAD	25	..	..	25	347	602	213	427	70	158	94	..	..	..	1	1	..	22	10	..	33	33	221	..	..	..
LEYDON AND WINSTREE	101	..	..	101	1701	3149	813	2106	22	345	275	4	4	..	7	4	..	9	2	1	44	44	353	58	14	97
MALDON	56	..	..	56	730	1518	672	1344	67	70	50	6	6	..	1	1	..	32	11	..	35	35	242	6	30	48
ONGAR	128	64	..	64	519	620	437	450	82	245	190	2	1	..	..	..	..	10	..	..	83	83	545	83	10	136
ROCHFORD	252	..	..	252	198	430	76	89	13	33	38	10	6	..	11	11	..	13	29	..	39	39	295	39	20	188
SAFFRON WALDEN	79	8	..	71	3121	3332	3121	3332	45	39	90	51	51	..	..	..	..	11	4	..	114	114	776	..	34	188
TENDRING	303	30	..	273	646	846	646	846	15	200	88	2	1	..	..	..	..	7	5	..	74	74	530	85	11	80
RURAL TOTAL	1646	274	..	1372	10530	16152	8795	13533	1277	2425	1378	75	69	..	61	64	..	183	102	1	..	651	652	4540½	444	184	1200
BORO' & URBAN TOTAL	12670	537	334	11799	26444	75079	8179	25624	790	12586	10700	1008	724	21	1082	1019	24	225	222	7	1	3410	3525	23393	1778	1121	7546½
TOTAL FOR ADMINISTRATIVE COUNTY	14316	811	334	13171	36974	91231	16974																				

* 8 Flats.

* 82 Flats.
† 30 Flats.

* Also 2 houses demolished voluntarily.

TABLE VI.
HOUSING ACT, 1930.

SUMMARY OF RETURNS RECEIVED FROM COUNCILS OF RURAL DISTRICTS IN REGARD TO HOUSING CONDITIONS OF PERSONS OF THE WORKING CLASSES—1936.

RURAL DISTRICT.	TOTALLY UNFIT HOUSES.			PARTIALLY UNFIT HOUSES.			ESTIMATED NO. OF HOUSES REQUIRED TO 31ST MARCH, 1937.				PROPOSED NEW HOUSES TO 31ST MARCH, 1937.			
	On 31st December, 1935.		Demolished from 1st January to 31st December, 1935.	On 31st December, 1935.		Rendered habitable from 1st January to 31st December, 1935.	To meet overcrowding.		To meet normal expansion.		Approved by Minister.		Not yet approved by Minister.	
	Occupied.	Unoccupied.		Occupied.	Unoccupied.		Agricultural Workers.	Others.	Agricultural Workers.	Others.	Agricultural Workers.	Others.	Agricultural Workers.	Others.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Saintree	71	32	22	311	—	176	34		(a)		88		(h)	
Elmsford	112	13	14	87	—	98	25	31	121	244 (m)	—	16	146	255 (m)
Unmow	63	16	2	322	—	120	36	12	(c)		22	—	56	22
Sping	3	19	2	165	—	241	(d)		(e)		34	—	64 (f)	
Atstead	32	48	19	70	6	61	15	—	16	—	—	—	44 (g)	12
Wenden & Winstree ..	3	13 (h)	18	122	14	385	10 (i)	9	120 (n)		—	—	—	—
Weldon	19	8	39 (j)	13	2	57	28	13	18	9	—	—	17	7
Wichford	23	29	14	50	6	75	6	26	—	44	20	68	—	—
Wiffon Walden	23	19	—	38	1	56	90		—	—	—	—	—	—
Wandering	8	9	11	54	—	61	(k)		10	10	20	—	6	6
TOTALS	357	206	141	1232	29	1330	335		452		268		635	

NOTES.

NOTES.

(a) Not known.

(b) Cannot be ascertained till Parishes have been inspected.

(c) Unable to forecast expansion of District.

(d) Overcrowding Survey and Report under Housing Act, 1935, not yet completed.

(e) Same number as shewn in columns 14 and 15.

(f) Erection of houses contemplated in Parish of Theydon Bois but number not yet decided.

(g) 14 houses to be erected under Housing Act, 1930, and 42 houses under Housing Act, 1935.

(h) In addition undertakings not to let have been accepted under Section 19 of Housing Act, 1930, dealing with 8 unoccupied houses.

(i) The Rural District Council state that the overcrowding survey carried out under the Housing Act, 1935, shews the number of houses overcrowded to be 48.

(j) Total includes 14 houses demolished, 21 houses reconditioned and 4 houses used for purposes other than dwelling houses.

(k) The number of houses required to meet overcrowding is not known until the Survey and Report under the Housing Act, 1935, is completed.

(l) The number of houses proposed to be erected refers only to the Parish of Great Bentley. The position with regard to the remaining Parishes depends on the result of the Survey under the Housing Act, 1935.

(m) The number of houses shewn is estimated to be required up to 31st March, 1940.

(n) The District Council's Public Health Committee are of the opinion that private enterprise will meet the needs of the District so far as the total number of unfit and overcrowded houses is concerned.

in Sections 88 and 89, which replace Sections 32 and 33 of the Housing Act, 1930. In those special provisions a definite duty is placed upon the Council of every County "as respects each rural district within the County, to have constant regard to the housing conditions of persons of the working classes, the extent to which overcrowding or other unsatisfactory conditions exist and the sufficiency of the steps which the Council of the district have taken, or are proposing to take, to remedy those conditions and to provide further housing accommodation."

To assist the County Council in carrying out that duty, each Rural District Council furnished their fifth return (for the year 1935) in regard to housing conditions of persons of the working classes. A summary of these returns is given in Table VI on page 36b, and the totals are compared with last year's figures in the following table :—

	1934.	1935.
No. of totally unfit houses on 31st December ..	572 ..	563
No. of houses demolished during year ..	94 ..	141
No. of partially unfit houses on 31st December ..	1,343 ..	1,261
No. of houses rendered habitable during year ..	1,881 ..	1,330
Estimated No. of houses required :—	On 31-3-36.	On 31-3-37.
(a) To meet overcrowding	244 ..	335
(b) To meet normal expansion	1,124 ..	452
No. of proposed new houses :—		
(a) Approved by Minister of Health ..	357 ..	268
(b) Not yet approved by Ministry of Health..	428 ..	635

It will be seen that there was a decrease in the number of totally unfit houses, and consequentially an increase in the number of houses demolished. There was also a decrease in the number of partially unfit houses and in the number of houses rendered habitable. Grants under the Housing (Rural Workers) Acts, 1926-1931, have helped many owners to re-condition unfit cottages. (See page 38).

OVERCROWDING in dwelling houses did not become an offence under the Housing Act, 1935 (now Housing Act, 1936) in the Administrative County of Essex until 1st January, 1937. The first step in the campaign to abolish overcrowding was the carrying out of a survey by every Local Authority to ascertain every case of overcrowding which existed at the time of the survey, together with sufficient details relating to each case to enable the Local Authority to formulate proper plans for dealing with the problem. The results of the surveys were published by the Ministry of Health in the "Report on the Overcrowding Survey in England and Wales," which stated that in England and Wales at the time of the survey, 3.8 per cent. of the families were living in overcrowded conditions. In Table VII on page 38 are given the results of the survey in the Rural Districts in Essex. The percentage of overcrowding in the Rural Districts in Essex was 4.2. The lowest percentage was 0.8 in Braintree Rural and the highest was 3.7 in Saffron Walden Rural. In dwellings owned by Rural District Councils the lowest percentage was 1.4 in Braintree Rural and the highest was 7.1 in Uggar Rural.

Proposals to abate the overcrowding have received or are receiving consideration by the Rural District Councils.

TABLE VII.

SHOWING FOR EACH RURAL DISTRICT IN ESSEX THE RESULTS OF THE OVERCROWDING SURVEY AS
PUBLISHED BY THE MINISTRY OF HEALTH.

DWELLINGS INSPECTED.								
Rural District.	All Dwellings.				Dwellings owned by Housing Authorities.			
	Total.	Over-crowded.	Percentage over-crowded.	No. of families housed at minimum standard.	Total.	Over-crowded.	Percentage over-crowded.	No. of families housed at minimum standard.
Braintree	4,244	34	0.8	21	506	7	1.4	4
Chelmsford	8,261	90	1.1	50	704	20	2.8	11
Dunmow	3,313	87	2.6	49	407	25	6.1	4
Epping	2,401	50	2.1	14	404	26	6.4	4
Halstead	3,679	46	1.3	102	367	8	2.2	1
Lexden and Winstree	4,981	48	1.0	50	611	25	4.1	16
Maldon	4,248	65	1.5	43	333	11	3.6	16
Ongar	2,394	83	3.5	47	337	24	7.1	13
Rochford	4,301	39	0.9	35	304	15	4.9	2
Saffron Walden	3,101	114	3.7	81	174	12	6.9	7
Tendring	6,342	85	1.3	48	407	20	4.9	7
Totals	47,265	741	1.6	540	4,554	193	4.2	85

HOUSING (RURAL WORKERS) ACT, 1926-1931.

The information given below has been kindly supplied by the County Land Agent.

During the year 1936, 128 Forms of Application were received applying for Grants in respect of 263 cottages.

The Districts in which the cottages are situate are as under :—

District.	No. of Applications.	No. of Cottages.	No. of Cottages in respect of which Grants have been made.	Total Grants in the year. £
Braintree R.	20	46	14	1,380
Chelmsford R.	18	30	15	1,436
Dunmow R.	17	27	10	988
Epping R.	6	17	8	800
Halstead R.	10	29	8	800
Lexden & Winstree R.	6	9	9	900
Maldon R.	12	21	11	1,100
Ongar R.	9	26	8	800
Roehford R.	4	12	10	1,000
Saffron Walden R.	9	15	12	1,200
Tendring R.	9	15	9	900
Billerieay U.	1	1	—	—
Chigwell U.	1	1	—	—
Claeton U.	1	3	—	—
Frinton & Walton U.	1	2	1	100
Thurrock U.	3	8	8	800
Witham U.	1	1	—	—
	128	263	123	£12,204

Of the cottages included in the above applications, 123 were approved for Grants, 16 were not approved, 34 were withdrawn and 90 were under consideration at the end of the year.

The total number of cottages approved for re-conditioning under the Act in Essex up to December 31st, 1936, is 719. The total amount of Grants is £65,174 and it is estimated that the expenditure made in addition, by the owners themselves, exceeded the sum of £58,356.

Particulars of three typical cases of cottages reconstructed or improved by Grants made by the County Council during 1936 are set out hereunder :—

(1) *Parish of Finchingfield.*

Detached timber built plaster and tiled cottage :—

Front doors removed and one entrance formed in centre. All windows renewed and also all external plastering. New floor, stairs, copper, sink and food store. New entrances and internal partitions.

Grant made to owner—£100.

Estimated total expenditure—£151.

(2) *Parish of Belchamp St. Paul.*

Pair of timber built, plaster and slated cottages :—

Two additions erected at back to provide scullery, food store, with bedroom over. Roofs stripped and re-tiled. External plastering renewed. Chimneys rebuilt, new staircases, windows and new entrances. One new E.C. New ranges, stoves, coppers and sinks.

Grant made to owner—£200.

Estimated total expenditure—£465.

(3) *Parish of Horndon.*

Row of three timber built, weatherboarded and tiled cottages :—

Roof stripped, re-tiled and re-formed to provide lean-to bedrooms with dormer windows. External walls covered with expanded metal and re-plastered. New windows, doors, coppers and sinks. New food stores and W.C.s Water laid on and W.Cs. and sinks connected to sewer. Concrete dry area formed round cottages.

Grant made to owner—£300.

Estimated total expenditure—£620.

MILK SUPPLY.

Veterinary Inspection of Dairy Herds.

The scheme for the inspection three times yearly of dairy herds producing ordinary milk was continued. During the year, the remainder of the part-time District Veterinary Officers were replaced by a whole-time staff. The veterinary staff now consists of one Chief Veterinary Officer, one Senior Assistant Veterinary Officer, and seven Assistant District Veterinary Officers.

According to the reports of the Chief Veterinary Officer, the number of dairy herds in the County has fallen to 1,880. During the year, 5,560 inspections of dairy herds were carried out.

Under the Milk and Dairies Order, 1926, it is unlawful for the owner of cows suffering from certain specified diseased conditions to sell milk from such cows or to use it in the manufacture of products for human consumption. These diseased conditions are non-tubercular and are not notifiable, and it can be confidently asserted that none of these conditions would have come to light or to the knowledge of the County Council were it not for the periodical visits to farms by the veterinary staff.

These diseased conditions, and the number of cows found to be suffering therefrom during the period under review are tabulated below together with comparative figures for the previous year; the table being kindly supplied by the Chief Veterinary Officer :—

			1935.		1936.
Giving tuberculous milk .. ..	..	..	11	..	6
Emaciation due to tuberculosis .. ..	..	..	61	..	33
Tuberculosis of the udder .. ..	..	..	147	..	147
Acute inflammation of the udder .. ..	..	..	51	..	13
Acute mastitis .. ..	..	..	376	..	286
Actinomycosis of the udder .. ..	..	..	2	..	—
Anthrax .. ..	..	..	—	..	—
Foot-and-Mouth disease .. ..	..	..	—	..	—
Suppuration of the udder .. ..	..	..	114	..	32
Comatose condition .. ..	..	..	1	..	—
Septic condition of uterus .. ..	..	..	69	..	42
Any infection of the udder or teats which may convey disease .. ..	..	..	634	..	275
			<hr/> 1,466	..	<hr/> 834

Whenever an animal is found to be suffering from any of these diseased conditions, a notice is served upon the owner, drawing his attention to the fact, and the local Medical Officer of Health is also notified.

In addition to the above, 417 animals were detected during routine inspection of the dairy herds and were dealt with under the Tuberculosis Order, 1925.

Milk and Dairies (Consolidation) Act, 1915.

BIOLOGICAL EXAMINATIONS. For the financial year 1936-37, the Public Health and Housing Committee and the Education Committee authorised the County Medical Officer to arrange for the taking of the following samples of milk for submission to biological examination :—

1,750 to be obtained by the District Veterinary Officers.

600 to be obtained by the Weights and Measures Inspectors and the County Health Inspectors.

600 under the Milk-in-Schools Scheme to be obtained by the Weights and Measures Inspectors.

2,950

During the year 1936, the biological examination of the samples of milk, obtained mostly direct from farms, gave the following results :—

By whom taken.	No.	No. found to contain Tubercle Bacilli.
Weights and Measures Inspectors and County Health Inspectors ..	574	60 (10.45%)
District Veterinary Officers ..	1,193	55 (4.61%)
 Total	<hr/> 1,767	<hr/> 115 (6.51%)

This percentage is higher than the low figure of 4.7 per cent. which was recorded last year.

The Chief Veterinary Officer arranged for the usual investigations under the Milk and Dairies (Consolidation) Act, 1915, and took all necessary action under the Tuberculosis Order, 1925, in regard to the samples in which tubercle bacilli were found.

SECTION 4. During the year, 21 notifications were received from Medical Officers of Health under Section 4 of the Milk and Dairies (Consolidation) Act, 1915, to the effect that the biological examination of samples of milk from 20 farms within the Administrative County of Essex had revealed the presence of tubercle bacilli. In addition, one notification was received in regard to a sample of milk submitted to microscopical examination which revealed acid-fast-alcohol-fast bacilli resembling tubercle bacilli. Particulars were transmitted to the Chief Veterinary Officer, who arranged for the usual examinations of the herds at the farms where the milk in question was produced, and who has kindly supplied the following results :—

	Section 4 Inquiries.
Animal(s) responsible for infection dealt with under the Tuberculosis Order, 1925	16
Infection apparently due to animals sold between date sample taken and Veterinary Officer's examination of herd	3
Infection apparently due to animals slaughtered privately between date sample taken and Veterinary Officer's examination of herd	1
No animal found to be responsible for infection	*2
	<hr/> 22 <hr/>

*In these cases the samples were not taken direct from the farms, but from the retailers' premises.

Milk and Dairies Order, 1926.

The County Council's laboratory service was extended as and from April 1st, 1936, to include the bacteriological examination of samples of milk for the number of bacteria and bacillus coli. The local authorities in Essex, with the exception of three Municipal Boroughs, six Urban Districts and three Rural Districts, took advantage of these additional facilities, with the result that there was a large increase in the number of samples examined. During 1936, 808 samples were examined and 92 were found to be unsatisfactory.

Milk (Special Designations) Order, 1936.

The Milk (Special Designations) Order, 1923, was revoked by the Milk (Special Designations) Order, 1936, which came into operation on 1st June, 1936. Under the amended Order, the special designations for milk as and from 1st June, 1936, became as follows :—

- (1) *Tuberculin Tested Milk*, which is milk from cows which have passed a veterinary examination and a tuberculin test, and it may be bottled on the farm or elsewhere. Until 31st December, 1936, such milk must not contain more than 200,000 bacteria per millilitre, and after that date it must satisfy a prescribed Methylene Blue Reduction Test for cleanliness. At all dates, it must not contain coliform bacteria in 1/100th millilitre.
- (2) *Accredited Milk*, which must satisfy conditions similar to those prescribed in the Order of 1923 for Grade "A" milk. It is raw milk from cows which have passed a veterinary examination. It may be bottled on the farm or elsewhere. It must satisfy the same bacteriological tests as are prescribed for raw Tuberculin Tested milk.

During the year 1936, the following licences were granted :

Kind.	No.
Tuberculin Tested Milk	46
Accredited Milk	748
Total	794

Licences to produce the abovementioned designated milks are now granted by Councils of County Boroughs or County Councils.

TUBERCULIN TESTED MILK. From 1st June, 1936, to 31st December, 1936, seven licences to use the designation " Tuberculin Tested Milk " were granted to persons who had not previously held licences. Visits were also paid to the farms which had previously been licensed by the Ministry of Health to produce Certified milk or Grade " A " (Tuberculin Tested) milk, in order to make recommendations regarding the granting of licences to produce Tuberculin Tested milk during the year ending 31st December, 1937. Sixty-two visits were paid to these farms by the County Health Inspectors, when 42 samples of milk were obtained.

ACCREDITED MILK. 1,595 visits were paid by the County Health Inspectors to farms licensed to produce Accredited milk, when 690 samples of milk and 187 samples of water were obtained. This is the greatest number of samples taken due to the Milk Marketing Board's Scheme for establishing a Roll of Accredited Producers, details of which were given in the Report for 1935.

Arrangements made by the County Medical Officer for obtaining samples of milk were continued on the same lines as in 1935, under which the Chief Veterinary Officer arranged for the District Veterinary Officers, at their quarterly visits to licensed farms, to obtain routine samples of milk. The following information regarding these samples has been extracted from the reports of the Chief Veterinary Officer :—

Table showing the number of samples obtained by the District Veterinary Officers during the year ended 31st December, 1936.

	No. of Samples of Milk.	Samples found unsatisfactory.	Percentage.
March quarter	612	24	4.00
April and May	387	35	9.00
1st June to 30th September..	1,149	357	31.07
December quarter	734	96	13.08
	2,882	512	17.77

It will be seen from the above table that the highest number of unsatisfactory samples was obtained during the summer months, June to September, and the lowest number during the winter months, January to March.

Appropriate action is taken in connection with unsatisfactory samples, and the advice of the County Officers and of the staff of the East Anglian Institute of Agriculture, Chelmsford, is placed at the disposal of all the farmers.

During 1936, the Committee decided that the licences granted to three farmers authorising the use of the designations " Accredited Milk " be revoked. In each case, the farmer appealed to the Ministry of Health against the Committee's decision. The

Ministry of Health dismissed two of the appeals, and in the remaining case the licence lapsed owing to the death of the farmer.

MILK SPECIAL SUB-COMMITTEE. In December, 1936, the Public Health and Housing Committee adopted a recommendation that the County Council should delegate the powers and duties of the Council under the Milk (Special Designations) Order, 1936, to a Special Sub-Committee of the Sanitary and Health Sub-Committee of the Public Health and Housing Committee, such powers to be exercised by the Sub-Committee subject to any general directions which may from time to time be given by the Public Health and Housing Committee and subject to the receipt of reports upon each application for a licence under the Order by the County Medical Officer of Health and the Chief Veterinary Officer. Such Committee to consist of seven members to be appointed by the Sanitary and Health Sub-Committee, as to four from amongst their own number and as to the remaining three from the members of the Diseases of Animals Sub-Committee of the Agricultural Committee, being members of the County Council, upon the nomination of that Sub-Committee.

Milk-in-Schools Scheme.

This Scheme was outlined on page 45 of the Annual Report for 1934. The Scheme was readily accepted by, and received the full co-operation of most of the Head Teachers, upon whose willing help the success of the Scheme must depend. As a result of these efforts, the following numbers participate in the Scheme :—

(a) Number of schools under the Milk Marketing Board Scheme, 483, an increase of 20.

Number of children participating, 38,362, an increase of 318.

(b) Number of schools not necessarily under the Milk Marketing Board Scheme, 96.

Number of children participating, 4,048.

The County Medical Officer, after consulting the local Medical Officers of Health, issued during the year 84 certificates approving of the source and quality of the milk supplied. On 31st December, 1936, there were 527 certificates in operation under the scheme.

During the year, samples of milk as delivered to the schools were obtained and submitted to biological examination and the bacteria count and coliform bacteria test with the following results :—

(a) *Biological Examination.* 694 samples, of which 27 gave inconclusive results, 29 (4.4%) were found to contain tubercle bacilli and 2 were sour when received at the laboratory. In respect to the samples containing tubercle bacilli, prompt action was taken by the Chief Veterinary Officer with a view to eliminating from the herds concerned any cow which was found to be giving tubercle bacilli in the milk.

(b) *Bacteria Count and Coliform Bacteria Test.* The standard adopted for ordinary raw milk is that which applied to Accredited milk, namely, the number of bacteria must not be more than 200,000 per cubic centimetre and coliform bacillus must be absent in 1/100th of a cubic centimetre. Of the 696 samples examined, 13.4% did not comply with the adopted standard in respect to the number of bacteria and 26.8%

in respect to the coliform bacillus. In each of the unsatisfactory cases representations were made to the local Medical Officer of Health and in some instances advisory visits by members of the staff of the County Health Department were made to the farms concerned.

(c) *Chemical Test.* The following paragraph has been extracted from the Annual Report of the County Analyst :—

“ Of the 790 samples taken from schools or other public institutions within the County, 37 were found to be unsatisfactory in view of the requirements of the Food and Drugs (Adulteration) Act, 5 by reason of the presence of added water, and 32 by reason of deficiency in fat. Ninety other samples, although genuine from the point of view of the Food and Drugs (Adulteration) Act, failed, however, to comply with the special contractual obligation entered into by the vendors to supply milk containing 3.25% of fat instead of the mere 3% required under the regulations.”

In regard to those schools not participating, enquiries show that in the majority of the cases some other form of drink, such as cocoa, malted milk, &c., is provided.

FOOD AND DRUGS.

The Administrative County is divided into two districts for the sampling of Food and Drugs, namely, Eastern and Western Districts. The following statistical information relating to this work has been kindly furnished by the County Analyst Dr. Bernard Dyer, 17, Great Tower Street, London, E.C. (Telephone No. Royal 6608), and relates to the year 1st December, 1935, to 30th November, 1936 :—

Samples taken from Vendors.	Samples Analysed.	Samples Unsatisfactory.	Percentage of Unsatisfactory Samples.
Eastern District of the County ..	1849 ..	131 ..	7.1 (5.9)
Western District of the County ..	2360 ..	43 ..	1.8 (1.9)
Borough of Ilford ..	3 ..	—	9.0 (0.8)
Borough of Walthamstow ..	81 ..	10	
Wanstead and Woodford Urban District Council ..	30 ..	—	
	4323 ..	184 ..	4.3 (3.3)
“ Appeal to Cow ” milk samples :—			
Eastern District of the County ..	63		
Western District of the County ..	6		
	69		
Milk Samples taken from Schools or other Institutions :—			
Eastern District of the County ..	477 ..	30 ..	6.3
Western District of the County ..	313 ..	7 ..	2.2
	790 ..	37 ..	4.7
Total ..	5182 ..	221 ..	—

The above table shows that during 1936 the number of unsatisfactory samples examined increased, the percentage being 4.3 per cent. compared with 3.3 per cent. in 1935.

The following are interesting extracts from the Annual Report of Dr. Bernard Dyer, the County Analyst :—

MILK. Of the 1,344 samples of milk taken from vendors 132 were unsatisfactory—in 39 cases by reason of addition of water and in 93 cases by reason of deficiency in fat.

CREAM ICES. The two samples of “ices” sold as “cream ices” were found to contain respectively only 3.1 per cent. and 4.1 per cent. of milk fat and were, therefore, obviously misdescribed.

SAUSAGES. Twenty-four samples sold as “preserved sausages” contained preservative well within the prescribed limits allowable when preservation is declared.

Of 217 samples purchased merely as “sausages,” only 3 were found to be preserved, and in none of these cases did the quantity of sulphur dioxide used exceed the quantity permissible under the regulations.

CAKE. Of the 4 samples of cake purchased during the year only one was unsatisfactory, namely, a cake sold as “Dundee Cake” with a declaration from the vendor that it was made with “fresh dairy butter” and eggs. Although this cake contained 14 per cent. of fat, the total quantity of butter included therein did not exceed the half of one per cent.

GELATINE. Of 23 samples of leaf gelatine 5 were found to be unsatisfactory by reason of the presence of traces of arsenic in excess of the usually accepted limit of the one hundredth part of a grain per pound put forward in the Report of the Royal Commission of 1901. The quantity of arsenic found in these samples, as indicated in our report for the current quarter, ranged from the one seventieth part to the one forty-fifth part of a grain of arsenic per pound of gelatine. As a consequence of these findings, the immediate vendors, wholesalers and manufacturers of the parcels of gelatine whence these samples had been taken were cautioned and the offending stocks withdrawn.

The presence of arsenical contamination in gelatine is understood to be sometimes attributable to the use of hides which have been contaminated by the process of preservation or sometimes (in the case of bone gelatine) by neglect to ensure a high degree of purity in the acid which is used for removing from the chondrine or gelatine-yielding portion of the bones the phosphate of lime with which it is naturally associated.”

METEOROLOGY.

Table VIII is compiled from information kindly supplied by the East Anglian Institute of Agriculture, Chelmsford, from the records kept at the County Meteorological Station at Chelmsford.

The year 1936 proved to be a second consecutive wet year, the number of rainy days being 192 or 11 more than in 1935. The rainfall was 25.17 inches as compared to 27.32 inches for 1935. January was the wettest month, the next three wettest months being June, July and November. August was the driest month.

This year the highest maximum temperature (86°) was reached on one day in June, the next highest (83°) being on one day in August.

TABLE VIII.

OBSERVATIONS FROM THE COUNTY METEOROLOGICAL STATION AT CHELMSFORD.

1936.	Dry bulb readings.	Wet bulb readings.	Maximum readings.	Minimum readings.	Absolute maximum.	Date of absolute maximum.	Absolute minimum.	Date of absolute minimum.	Number of rainy days.	Rainfall in inches.
January	39.0	37.0	44.0	34.0	52	10th & 11th	18	19th	21	4.19
February	36.3	35.1	42.1	31.1	54	18th	17	12th	15	1.64
March	44.5	42.4	51.9	38.4	63	21st	29	4th	13	0.81
April	44.8	40.9	51.3	40.6	64	29th	28	14th & 21st	14	1.52
May	51.2	50.5	63.6	45.1	75	6th	31	29th	6	0.78
June	62.0	58.4	69.8	51.3	86	26th	37	4th	19	3.79
July	62.1	58.0	69.0	54.2	75	5th, 6th & 17th	44	27th	19	3.49
August	65.2	59.9	72.2	43.6	83	29th	42	29th	9	0.55
September	59.1	56.1	65.9	51.3	73	11th	38	29th	18	1.87
October	49.7	47.0	56.7	40.0	67	15th	29	4th & 29th	16	1.09
November	42.8	42.0	48.5	36.0	56	17th	28	23rd	17	3.06
December	38.2	37.5	43.7	33.9	50	27th	26	6th	25	2.38
TOTAL—										
Year 1936	...	...	...	...	...	...	...	...	...	25.17
„ 1935	...	...	...	...	...	...	...	...	...	27.32

WATER SUPPLIES.

During the year, one Rural District Council (Chelmsford Rural) made application to the Ministry of Health for sanction to borrow £11,828 for works of water supply in four parishes. The Public Inquiry was held on 19th November, 1936.

As stated under the heading of “Meteorology,” 1936 proved to be a second consecutive wet year, which tended to relieve the water situation where acute shortage was experienced two years ago. Nevertheless, it was still necessary to cart water to some parts of the rural districts.

The work of laying mains and providing water towers by the Rural District Councils under approved schemes proceeded throughout the year. Comprehensive schemes were completed during the year in Chelmsford Rural (Southern) and Maldon Rural (Southern), the latter being formally opened by Alderman A. M. Mathews, Chairman of the County Public Health and Housing Committee. Marked advance was made in the work for the comprehensive schemes in Lexden & Winstree Rural and Saffron Walden Rural. Smaller schemes were being dealt with or completed in the Rural Districts of Dunmow, Epping, Halstead, Ongar, Orsett and Tending.

One comprehensive scheme, estimated to cost £134,000, was abandoned by the Halstead Rural District Council owing to the very small grant (£3,000) which the Ministry of Health was able to offer from the balance of the £1,000,000 set aside for

grants under the Rural Water Supplies Act, 1934. This is regrettable, as in that Rural District only 7 out of the 40 parishes have a piped supply of water. When the present schemes are completed, Halstead Rural will be the only rural district in the County with such a shortage of piped supplies. Representations have been made to the Rural Districts of Ongar and Tendring regarding the extending of mains to pipeless parishes.

According to the latest available figures, the estimated cost of schemes and amounts of grants promised or given by the Ministry of Health towards the cost of schemes for providing water supplies in rural districts in Essex are as follows :—

Table showing estimated cost of Schemes of Public Water Supplies in Rural Districts and the amount of grant promised or given by the Ministry of Health.

Rural District.			Estimated Cost. £	Amount of grant from Ministry of Health. £
Braintree R. (Northern Area)	..	..	38,000	6,000
„ (South-Eastern Area)	..	..	37,360	1,700
Chelmsford R. (Southern Area)	..	..	43,800	None
„ (Northern Area)	..	..	65,584	12,325
Dunmow R. (Main Scheme)	..	..	98,119	12,650
„ (Smaller Scheme)	..	..	7,890	1,150
Epping R.	..	..	6,126	350
Halstead R.	..	..	4,325	550
Lexden & Winstree R.	..	..	80,700	None
Maldon R. (Northern Area)	..	..	17,250	None
„ (Southern Area)	..	..	39,950	3,950
Ongar R.	..	..	13,571	3,300
Orsett R.	..	..	4,600	900
Saffron Walden R.	..	..	121,050	10,800
Tendring R.	..	..	2,581	150
			<hr/> £580,906	<hr/> £53,825

The Ministry of Health issued on 31st March, 1936, a circular letter, stating that, in view of the large proportion of the sum of £1,000,000 which has already been provisionally allocated, the Minister could not undertake to entertain any further applications for grants under the Rural Water Supplies Act, 1934, after 25th April, 1936.

The County Accountant reported upon the difference in the amounts of the grants allocated to the various Rural District Councils, expressed as percentages of the estimated cost of the various water supply schemes, showing how the percentages have decreased as the sum of £1,000,000 became exhausted and the consequent effect upon contributions to be made by the County Council in pursuance of Section 57 of the Local Government Act, 1929.

Subsequently, the County Council sent to the County Councils' Association the following recommendation :—

“ That the attention of the County Councils' Association be drawn to the fact that the sum of £1,000,000 provided by Parliament for the purpose of enabling the Minister of Health and the Department of Health for Scotland to make contributions in pursuance of the Rural Water Supplies Act, 1934, towards the expenses of Local Authorities in providing a supply or in improving an existing supply of water in a rural locality, is practically exhausted, and that inasmuch as there are a number of parishes in this County without a proper water supply, which no doubt is the position in other Counties also, the Association be requested to consider the question of making representations that a further sum should be provided by Parliament for the same purpose.”

GAUGING OF RIVERS. The following report was submitted to the Sanitary and Health Sub-Committee on 8th October, 1936 :—

“ In a special report, dated 22nd August, 1935, which was submitted to the Sanitary and Health Sub-Committee on 29th August, 1935, I included extracts from Mr. J. Mackworth Wood's report, dated 20th September, 1934, regarding the gauging of rivers, particularly the Cam, Colne and possibly the Roding. There are also the Rivers Blackwater and Chelmer, which are sources of public water supplies, and which are gauged in a way by the Southend Waterworks Company. The River Stour, which is a source of public water supply, has been and is being gauged accurately by the South Essex Waterworks Company.

It was felt in the first instance that consideration should be given to the possibility of making arrangements for the gauging of the River Colne, say, at Lexden, in the area of the Essex Rivers Catchment Board. Therefore, a conference was held with representatives of the Essex Rivers Catchment Board, who subsequently made application to the Ministry of Agriculture and Fisheries for financial assistance to carry out such gaugings.

By letter, dated 26th March, 1936, the Essex Rivers Catchment Board stated that the ‘ Ministry of Agriculture and Fisheries have now intimated that they will be prepared for the Board to include the construction of the proposed gauge of the River Colne in their scheme for Capital Works which is being carried out with the approval of the Ministry who make a grant of 50 per cent. towards the loan charges on the money borrowed to finance the scheme. The Engineer is at present preparing a report in connection with the proposed gauging.’

In January, 1935, as the result of the severe drought of the years 1933 and 1934, the Ministry of Health and Secretary of State for Scotland appointed a Committee ‘ to advise on the Inland Water Survey for Great Britain on the progress of the measures undertaken and on further measures required and, in particular, to make an annual report on the subject.’

The First Annual Report of the Inland Water Survey Committee for 1935-36 was issued on 23rd April, 1936. The report states ‘ the first task was to endeavour to ascertain where records are being kept and measurements of water are now being made, how the results are recorded and what methods

and apparatus are used. With this object, a questionnaire was issued at our request by the appropriate Government Departments to all Local Authorities, Water Undertakers, Catchment Boards, Fishery Boards, Electricity Undertakers, Navigation Authorities and Industrial concerns and others known to be using water. From the returns which relate to overground water, it is found that there are relatively few instances where information goes beyond a simple record of water levels of rivers and streams, and therefore where the gauging stations, which have been installed for particular local purposes, are also suitably situated from the point of view of a general survey, it will usually be necessary to make other measurements in order to convert the level readings into records of volumes discharged. The experience we have already gained indicates, however, that the number and distribution of existing gauging points are altogether insufficient to provide the information which is essential for an adequate survey of overground water. Many new gauging stations will be required, and their positions will have to be carefully selected.'

In regard to carrying out the work of gauging rivers, the Committee's report states that 'It appears to us that in England and Wales the Catchment Boards established under the Land Drainage Act, 1930, are the appropriate Bodies to instal gauging stations and make and record measurements of the flows of the rivers which they control. Indeed, it would seem that the ascertainment in some detail of river flows and their variation by Catchment Boards is necessary for the carrying out of their land drainage functions. This is recognised by the Minister of Agriculture and Fisheries and we understand that where gauging installations are provided by Catchment Boards as part of the proposed improvement works, the cost of the installation may be included in the cost of the improvement works eligible for grant under the Act. Further, that where gauging installations are provided by Catchment Boards for the purpose of obtaining information preliminary to the formulation of a scheme of improvement, the cost of installation may, if the scheme matures, be included for grant purposes in the cost of the scheme. We reached the conclusion that endeavour should be made to secure the early co-operation of the Catchment Boards in installing such additional river gauging stations as may be found to be necessary for the survey, and the progress already made in this direction encourages us to hope for the ready co-operation of all Catchment Boards.' "

Subsequently, the Public Health and Housing Committee approved of the following recommendation :—

" That the Clerk of the Council be instructed to communicate with the undermentioned Catchment Boards, requesting them to give consideration to the question of undertaking the gauging of the rivers indicated below :—

Ouse Catchment Board	..	..	Essex River Cam, below Chesterford.
Essex Rivers Catchment Board		..	River Blackwater and River Chelmer.
Roding Catchment Board	..	..	River Roding."

At the time of writing, agreement has been reached with the Essex Rivers Catchment Board, under which they are prepared to proceed with the establishing of a gauging station on the River Colne, and to accept responsibility for recording the gaugings. Contributions towards the cost of establishing this gauging station are being made by the Ministry of Agriculture and Fisheries, the Essex County Council, the Essex Rivers Catchment Board, the Colchester Borough and the South Essex Waterworks Company.

SEWAGE WORKS AND RIVERS POLLUTION.

LOANS. During the year five Urban Districts and four Rural Districts made application to the Ministry of Health for sanction to borrow sums of money, a gross total of £196,527, for works of sewerage and sewage disposal. Public Inquiries were held on the dates shown in the following table :—

Date of Inquiry.	Local Sanitary Authority.	Catchment Area.	Loan required.	Purpose.
1936.			£	
January 22nd ..	Tendring Rural ..	Sca ..	10,060	Sewerage and sewage disposal—Little Oakley and Ramsey.
January 23rd ..	Tendring Rural ..	Stour ..	10,876	Sewerage and sewage disposal—Lawford.
May 5th ..	Epping Rural ..	Roding ..	7,250	Sewerage and sewage disposal—Theydon Bois.
May 6th ..	Epping Rural ..	Lee ..	21,900	Sewerage and sewage disposal—Nazeing.
June 3rd ..	Dunmow Rural ..	Chelmer ..	9,250	Sewage disposal—Felstead and Little Dunmow.
September 17th	Chigwell Urban ..	Roding ..	92,750	Sewerage and sewage disposal.
October 20th ..	Chingford Urban ..	Lee ..	2,760	Surface water drainage.
October 28th ..	Rayleigh Urban ..	Roach ..	9,058 } 382 }	Excess expenditure on sewerage and sewage disposal scheme.
November 13th	Waltham Holy Cross Urban ..	Lee ..	3,900	Sewerage and sewage disposal.
November 24th	Halstead Rural ..	Colne ..	25,000	Sewerage and sewage disposal—Earls Colne and White Colne.
December 8th	Brentwood Urban ..	Ingrebourne ..	*3,341	Sewerage.
		Total ..	£196,527	

*Part of balance of previous loan of £43,220.

TABLE IX.

SHOWING SEWAGE WORKS, NUMBER OF VISITS, AND NUMBER OF SAMPLES TAKEN DURING THE YEAR 1936.

Catchment Area.	Sewage Works.	Sanitary District.	No. of Visits.	Samples taken.			Total.
				No. satisfactory or on border line.	No. unsatisfactory.		
Brain ..	Braintree	Bra'tree & Boeking U.	7	1	6		7
Blackwater ..	Boeking	"	4	4	—		4
	Coggeshall	Braintree R... ..	6	5	1		6
	Kelvedon	"	5	4	1		5
	Silver End	Witham U.	5	1	4		5
	Witham	"	4	4	—		4
Roding ..	Abridge	Ongar R.	4	4	—		4
	Buckhurst Hill ..	Chigwell U.	4	3	1		4
	Chigwell	"	3	3	—		3
	Chigwell Row	"	4	3	1		4
	Debden Green	"	2	2	—		2
	Epping (Southern) ..	Epping U.	5	—	7		7
	Grange Hill	Chigwell U.	2	—	2		2
	Loughton	"	3	1	2		3
	Moreton	Ongar R.	1	—	1		1
	North Weald	Epping R.	4	3	1		4
	Ongar	Ongar R.	1	—	1		1
	Theydon Bois	Epping R.	4	2	2		4
	Thornwood	"	4	1	3		4
	Wanstead	Wanst'd & Woodf'd U	4	4	—		4
	Woodford	"	4	4	—		4
Chelmer ..	Chelmsford B. & R. Jt.	Chelmsford B. & R...	2	1	1		2
	Dunmow	Dunmow R.	3	1	2		3
	Felstead	"	3	—	3		3
	Great Waltham	Chelmsford R.	1	—	1		1
	Thaxted	Dunmow R.	3	1	2		3
Ter ..	Hatfield Peverel	Braintree R.	4	4	—		4
Wid ..	Billericay	Billericay U.	3	3	—		3
	Great Warley	Brentwood U.	3	1	2		3
	Ingatestone	Chelmsford R.	3	2	1		3
	Shenfield, Hutton and						
	Ingrave	Brentwood U.	3	3	—		3
Colne ..	Halstead	Halstead U.	5	2	3		5
	Sible Hedingham	Halstead R.	3	—	3		3
	Tiptree	Lexden & Winstree R.	3	3	—		3
	East Donyland	"	1	—	1		1
	St. Osyth East	Tendring R... ..	2	1	1		2
Ingrebourne ..	Brentwood	Brentwood U.	3	3	—		3
Beam ..	Hornchurch	Hornchurch U.	1	1	—		1
	Romford & Hornchurch Jt.	Romford U. and Hornchurch U.	3	2	1		3
Crouch ..	Great Burstead	Billericay U.	3	3	—		3
	Laindon	"	3	3	—		3
Mardyke ..	Bury Farm, Great Warley	Hornchurch U.	3	1	2		3
	South Ockendon	Thurrock U... ..	2	2	—		2
	Orsett	"	2	—	2		2
Kirby Creek	Kirby-le-Soken	Frinton & Walton U.	2	2	—		2
Holland Brook	Thorpe-le-Soken	Tendring R... ..	4	3	1		4
Cam ..	Newport	Saffron Walden R. ..	3	2	1		3
	Saffron Walden	Saffron Walden B. ..	2	1	1		2
Roach ..	Rayleigh (East)	Rayleigh U... ..	3	3	—		3
Other samples including private sewage works, rivers, streams, ditches, &c.			156	97	61		158
Trade effluents			20	13	9		22
Trade effluents			15	13	7		20
Total			191	123	77		200

INSPECTIONS. During the year, 191 visits were paid to the sewage works, &c., in the Administrative County, when 200 samples were obtained. It will be seen from Table IX on page 52 that 123 samples were satisfactory or on border line, and 77 or 38.5 per cent. were unsatisfactory. Appropriate representations were made in regard to each unsatisfactory sample, and in consequence, Local Authorities carried out or proceeded with schemes to secure the necessary improvements.

ESSEX COUNTY COUNCIL ACT, 1933.

Establishments for Massage and Special Treatment.

On 1st April, 1934, Sections 54-71 of the Essex County Council Act, 1933, regarding establishments for massage and special treatment, came into force by resolution of the County Council, in the Boroughs of Chelmsford, Colchester, Maldon and Saffron Walden, the Urban Districts of Brentwood, Chigwell, Chingford, Clacton, Dagenham, Epping, Grays, Hornchurch, Purfleet, Romford, Tilbury and Waltham Holy Cross, and the Rural Districts of Epping, Ongar and Orsett.

On 1st August, 1934, the Sections also came into force by resolution of the County Council, in the Urban Districts of Billericay, Frinton & Walton and Wanstead & Woodford.

By Section 69, the powers and duties under this part of the Act are delegated to the Boroughs of Barking, Ilford, Leyton and Walthamstow. Conditions and restrictions to be imposed upon the exercise of the powers and duties of Part IV of the Essex County Council Act, 1933, were approved by the County Council on 6th March, 1934.

During the year ended 31st March, 1937, licences were granted to 58 applicants, authorising them to carry on establishments for massage or special treatment on the premises approved.

Refuse Dumps.

Sections 146-157 of the Essex County Council Act, 1933, in conjunction with the Third Schedule, give power for controlling the depositing of refuse in any place within the County other than the place within the County District in which the refuse is collected or assembled. In other words, it is mainly to control the dumping in Essex of refuse which has been collected in many of the London Boroughs.

At the end of the year there were 13 refuse dumps in Essex which must comply with the conditions of this Act. Surprise visits are paid to these dumps from time to time, and apart from a few minor infringements, it is apparent that every effort is being made to comply with the provisions of the Act.

Under Section 146 (2), with the previous consent in writing of the Council and of the Local Authority, any authority, body or person may form a deposit of refuse, or continue to add refuse to an existing deposit, subject to compliance with the conditions in Part II. of the Third Schedule. During the year, consent was given to depositing refuse under this Section at proposed dumps in the Urban Districts of Dagenham, Hornchurch, Thurrock and Billericay.

TOWN AND COUNTRY PLANNING.

The administration of the Town and Country Planning Act, 1932, and proposals relating to Playing Fields and Open Spaces are carried out by the Town and Country Planning Committee, which during the year dealt with many matters, including the following :—

TOWN PLANNING SCHEMES. A draft Town Planning Scheme for Harwich Borough was considered. Objections, which were mostly draft amendments, were placed before a Public Inquiry.

The Mid-Essex Regional Planning Committee considered objections to the scheme for Maldon Borough put forward by the Essex Rivers Catchment Board regarding certain areas adjacent to the Heybridge-Goldhanger Road which were scheduled for developments and which have been flooded during the recent winter. The Regional Committee decided to adhere to the proposals contained in the draft scheme as adopted in September, 1935. The County Council, however, agreed to support the Essex Rivers Catchment Board's objections and to submit evidence to the Public Inquiry accordingly. The scheme has, however, since been modified and the Catchment Board have, in consequence, withdrawn their objection.

During the year, the Rural District Councils of Epping and Ongar were invited and subsequently entered into an agreement to relinquish their powers and duties in favour of the Essex County Council under Section 22 of the Town and Country Planning Act, 1932, with a view to revised schemes being prepared by the County Council, the schemes in course of preparation being considered unsatisfactory.

The Grays Thurroek Urban District Council gave notice of their proposal to prepare a second planning scheme dealing with all lands in their area not included in their first scheme which was nearing completion. The County Council raised no objection to the proposal.

Representations were made upon the draft scheme submitted by the Tilbury Urban District.

RURAL ZONING IN THE REGIONAL SCHEMES. The Town and Country Planning Committee gave consideration to the proposals in respect to the scheduling of parts of areas as a rural zone. The manner in which it was proposed to treat this zone was as follows :—

“ This zone would be intended primarily for agricultural buildings, farmhouses and farm cottages. Development, it is recommended, should be restricted to houses having a maximum average density of one house per five acres, the minimum plot size to be one acre, and the minimum road frontage 100 feet per house.”

One of the principal reasons why a low density zoning of this nature is recommended in preference to an out-and-out agricultural reservation is that by Section 19 (1) (b) of the Act, compensation can be excluded in respect of such zoning on the ground that it “ limits the number of buildings ” as

opposed to prohibiting them altogether. In the case of an agricultural reservation the scheme must, of course, provide that compensation can be claimed. The Town Planning Consultants believe that the Minister will be prepared to approve this low density zoning and to exclude compensation in respect thereof if "substantial agreement with owners" can be secured, and they have strong hopes of obtaining such substantial agreement, which they already appear to have obtained in the other regions.

After careful consideration, the County Council subsequently agreed in principle to accept 75 per cent. of the financial responsibility for compensation in respect of injurious affection arising out of the reservation of land for agricultural purposes in the Planning Scheme for the North-West Region, subject to the details of the proposed reservations being approved by the County Council in due course.

The Waltham Holy Cross Town Planning Committee considered that in respect to a similar proposal for their area the County Council should accept full responsibility for the reservation of such land as comes within the scope of the Green Belt proposals. The County Council agreed in principle to accept full financial responsibility, subject to a grant from the London County Council.

LONDON "GREEN BELT" PROPOSALS. Reference was made in the Annual Report for 1935 to the London County Council's proposals for securing the provision of a "Green Belt." The object of such proposals is to provide a reserved supply of public open spaces and recreational areas, and to establish a "Green Belt" or girdle of open spaces, lands not necessarily continuous but as readily accessible from the completely urbanised area of London as practicable.

On 7th April, 1936, the County Council agreed that "subject to a satisfactory arrangement being reached with the London County Council as to the terms upon which their promised contributions are to be made, the Council approve in principle the spending, over a period of three years from 1st April, 1936, of a sum not exceeding £252,000 in acquiring or sterilising, or making grants towards the acquisition or sterilisation by other local authorities of land situate in that part of Essex which lies within the London Traffic Area, in furtherance and within the general framework of the Scheme for securing a Green Belt round London, outlined by the Greater London Regional Planning Committee in 1928, and again brought forward in a modified form by the London County Council in January, 1935."

Negotiations with the London County Council continued throughout the year, and on 12th June, 1936, a conference of Borough and District Councils interested in the Green Belt proposals so far as they affect Essex, was held in order to ascertain their attitude towards the proposal, and to find out how far they are prepared to contribute towards the cost.

A series of aerial photographs were obtained of the land concerned in the Epping-Hainault link to enable the boundaries to be more easily determined.

The Committee decided to concentrate upon the cost of acquiring or sterilising a number of large estates approximately equidistant from London, and linking them as far as possible with each other and with existing open spaces by a narrow ribbon which would, wherever possible, follow the line of an existing highway.

In further pursuance of the above-mentioned policy, the County Council subsequently approved of the purchase of the following estates :—

Pyrgo Park, comprising mansion and approximately 158 acres.

Belhus Estate, comprising approximately 610 acres, subject to the London County Council making a grant amounting to not less than 35 per cent. of the cost of acquisition.

The respective Local Sanitary Authorities were asked to co-operate with the County Council in preserving the above-mentioned estates in their present condition, pending the completion of the negotiations for purchase.

SOUTHEND "GREEN BELT" PROPOSALS. The Council for the Preservation of Rural England suggested to the County Council and to the Southend County Borough Council that the time had arrived when serious consideration should be given to the possibility of forming a "Green Belt" round Southend-on-Sea. This representation received the full support of the Town and Country Planning Committee, and at the instance of the Southend County Borough it was discussed at a conference between members of the two Authorities and of the Benfleet, Rochford and Rayleigh District Councils. A Joint Committee was formed, consisting of representatives from the five Councils, to consider the practicability of securing a "Green Belt" round Southend, of formulating proposals, and to submit recommendations to the Constituent Authorities. The proposals are now in course of preparation.

OPEN SPACES.

Chingford Urban. A contribution of 20 per cent. or £1,017, whichever be the lower, was approved by the County Council towards the cost of the acquisition by the Chingford Urban District Council of approximately 4.19 acres of land adjoining the Larkwood Open Space, situated within the Urban District, for the purpose of an open space, subject to the purchase price not exceeding the District Valuer's valuation.

Benfleet Urban. The attention of the Town and Country Planning Committee was drawn by the Essex Branch of the Council for the Preservation of Rural England to the fact that building developments were about to take place in the vicinity of Hadleigh Castle, near Benfleet, and their assistance was sought in preventing the threatened destruction of a well-known beauty spot with historical associations.

A scheme was prepared by the Benfleet Urban District Council for the reservation of some 30½ acres of land which was the saddle-back on which the castle stands, the orchard immediately behind it, and a strip adjoining the Downs, stretching almost to South Benfleet.

The County Council agreed to accept financial responsibility for compensation in respect of injurious affection arising out of the reservation as a public open space in the Benfleet Planning Scheme of approximately 304 acres of land in the neighbourhood of Hadleigh Castle.

PLAYING FIELDS. Approval was given to the contributions to the Urban Districts of Benfleet, Braintree & Bocking, Chigwell, Rayleigh, and Waltham Holy Cross, and the Rural District of Rochford towards the cost of the acquisition of playing fields, subject in each case to facilities being granted to the satisfaction of the Education Committee for the use of the grounds by children of neighbouring elementary schools for play and organised games.

COUNCIL FOR THE PRESERVATION OF RURAL ENGLAND. The Committee expressed the opinion that the Essex Branch of the Council for the Preservation of Rural England is clearly deserving of more financial support from the County Council than it has hitherto received. They therefore recommended that a grant of £50 should be made, to be regarded as only being in respect of the services of the Council for the Preservation of Rural England in relation to town planning and open spaces.

MENTAL DEFICIENCY.

The general arrangements for ascertainment, medical examination and reports on suspected cases of mental defect have continued as in previous years, with the services of the Deputy County Medical Officer, Dr. T. P. Puddicombe, being available to the Statutory Committee for the Care of the Mentally Defective and to the Courts of Justice for examinations and recommendations.

The year 1936 has been a busy one as shown by the number of examinations. This has entailed delegation of some of the examination work to Dr. A. R. Forbes, who has the necessary qualifications and experience.

The following table compiled from the reports, shows the classification of the 426 persons examined :—

			Males.		Females.		Totals.
Feeble-minded	..	..	145	..	112	..	257(a)
Imbeciles	..	..	59	..	35	..	94(b)
Idiots	..	..	29	..	19	..	48(c)
Moral Defectives	..	..	—	..	—	..	—
Not certified under the Acts	..	..	15	..	12	..	27(d)
			248	..	178	..	426

The above includes under (a) Males 14, Females 2, and under (d) Males 7, Females 4 referred by the Justices for examination.

(a) Eleven also suffer from Epilepsy and one is a Post-Encephalitic.

(b) One is epileptic, one microcephalic, one hydrocephalic and fifteen are Mongols.

(c) Two are epileptics, one blind, two microcephalic and one Mongol.

(d) One is epileptic.

The Essex Voluntary Association continues to render invaluable service in undertaking preliminary enquiries in ascertainment, voluntary supervision, organisation for statutory supervision and general following up.

The organisation and supervision of Occupation Centres, which are doing such a useful work, are also under the general control of this Association. These Centres are, as for last year, four in number, viz. :—at Barking, Dagenham, Walthamstow and Leyton.

In last year's report a full account was given of the extended institutional accommodation available as a result of the opening of the Turner Village extension of the Royal Eastern Counties Institution, Colchester, and it was intimated therein that further extensions should be made without undue delay. The Committee has foreseen that further extensions are inevitable and arrangements are in progress for the provision of additional accommodation.

One of the main difficulties in connection with this work is that experienced in dealing with the very young child showing gross mental defect, for whom nothing can be done beyond care and control and for whom no benefit will accrue except the prolongation of life. This problem will continue until "Euthanaesia" is legalised, but it is evident that a serious effort must be made to obtain and set aside accommodation for such cases in order to relieve the homes of families burdened with them.

The Statutory Committee, at the end of 1936 was responsible for the care and supervision of 1,950 persons, an increase of 226 on the previous year. These defective persons are catered for as follows :—

	Males.	Females.	Totals.
In Institutions	430	329	759
Under Statutory Supervision	600	475	1,075
Under Guardianship	20	21	41
Number on Licence from Institutions	34	41	75
	1,084	866	1,950

Of these 1,950 defectives, 133 were placed in Institutions during the year, 4 under Guardianship, and 199 under Statutory Supervision.

MENTAL TREATMENT ACT, 1930.

The Out-Patients' Consultative Clinics, as set out in the Report for 1935, have continued, the Medical Superintendents of Severalls and Brentwood Hospitals, Dr. R. C. Turnbull and Dr. W. G. Masefield respectively, acting as Consultants.

These Clinics provide a very useful service acceptable to private practitioner and patient alike.

By these means, early and expert advice is available and in some cases a complete mental breakdown is avoided by efficient treatment and co-operation.

The reports of the Consultants on the work of the clinics are as follows :—

Dr. R. C. Turnbull.

"The Clinics at Colchester and Chelmsford continue to function satisfactorily.

The Clinic at the Colchester Hospital is held at 3 p.m. on Monday afternoons and during the year 1936, 97 individual patients attended for diagnosis and treatment. The average attendance at the clinic was eight per session.

The Clinic at the Chelmsford Hospital is held at 2.30 p.m. on Wednesday afternoons, and during the past year 102 individual patients attended for diagnosis and treatment. The average attendance was five per session.

I am indebted to Dr. Penrose, who is always willing to give me assistance in dealing with mentally defective children who have been sent to the clinics for advice."

Dr. W. G. Masfield.

"The Clinic at Oldchurch Hospital, Romford, has been held weekly and 218 patients were seen there during 1936. This includes 126 out-patients and 92 in-patients, involving 295 attendances. The Woodford Out-Patients Clinic has been held twice monthly and 42 patients have been seen. In addition, advice regarding patients has been given at Orsett Public Assistance Institution when required."

BLIND PERSONS ACT, 1920.

The Blind Persons Act Committee has continued its good work.

In regard to the Specialist's services for certification of the blind, the Committee were unfortunate in losing the services of Mr. G. J. Ahern, M.R.C.S., D.O.M.S., in August, 1936. His position has since been filled by Mr. G. A. Jamieson, M.B., B.S., D.O.M.S., who commenced duty on the 1st March, 1937. In the interim the work was carried out by Mr. T. Collyer Summers, F.R.C.S., Consulting Ophthalmologist at Oldchurch Hospital, &c., assisted by two other part-time Ophthalmologists as occasion required. By these means it was possible to keep the work fairly well up to date.

In the report for the year 1935, a fairly lengthy description was given of the aims and objects of a comprehensive County Ophthalmic Service, including a report on this work by Mr. G. J. Ahern.

During 1936 the Home Workers Scheme has continued, and the Committee augments the earnings of the Home Workers by 15/- per week. The Home Teachers for the Blind at the end of year numbered eight, females 7, male 1.

Representations were received from certain organisations suggesting that allowances for domiciliary assistance to unemployed and other necessitous blind persons should be increased. The Committee in December, gave this careful consideration and recommended increasing these allowances.

During the year under review, 347 persons were examined by specialists. Occupational training was given to 40 persons for various periods.

On the 31st March, 1937, the Blind Persons Register showed a total of 1,664 (males 810, females 854), being an increase of 80 (males 30, females 50) over the previous year. Of these, 1,586 (males 761, females 825) are over 16 years of age, of whom 1,265 (males 555, females 710) are classed as unemployable.

The net increase of 80 on the Register is the result of the addition of 203 and removal of 123 names.

Of those removed from the Register, death accounts for 76, 44 removed to other areas, and 3 were re-classified as not coming within the definition of a blind person under the Act.

Cases under observation for the prevention of blindness number 559 as against 519 for 1935, a net increase of 40, the result of the removal of 25 cases from the list and the addition of 65 new cases.

PROPAGANDA.

HEALTH EXHIBITIONS. The County Council assisted in providing Health Exhibitions in the following districts :—Great Bardfield, Takeley, Foulness Island, Fordham, Stanway, Dedham, Layer-de-la-Haye, Colechester Shrub End, East Hanningfield, Quendon, Newport, Wimbish, Hatfield Heath, Tiptree.

Every effort was made to keep the Travelling Health Exhibition as up-to-date as possible, and for this purpose, several new exhibits, particularly in connection with Child Welfare, were added to the exhibition.

The morning of each Exhibition is usually devoted to demonstrations to school children, and at most of the Exhibitions school children have provided small plays dealing with such matters as health, cleanliness, etc. Physical fitness displays are also a feature in some villages.

During the afternoon, lectures on various Health subjects are given by Medical Officers, Dentists and others; wherever possible, these are arranged to coincide with a Medical or Dental Inspection in the schools. In this way, it is found that the mothers take a greater interest in the health services. Practical cottage cookery demonstrations are also given by a Dietetic Specialist. These are most popular, and have proved to be very helpful to the mothers.

Where possible, evening sessions are arranged when lectures on health subjects are again given.

Local enthusiasm is usually ensured by the system adopted of securing the co-operation of local Committees. The exhibitions in the rural parts have been particularly successful, due in no small measure to the willing co-operation of such Local Committees.

HEALTH LECTURES. Members of the Staff of the County Public Health Department gave 38 lectures during the year to Women's Institutes, Nursing and Midwives Associations, and at Health Exhibitions. In addition, talks are given by Medical Officers and Health Visitors at Child Welfare Centres.

PROVISION OF HOSPITAL SERVICES.

The Hospital Survey Committee and the Public Health and Housing Committee continued their activities throughout the year concerning the Council's Hospital policy, a good deal of attention being given not only to the urgent need for increasing the hospital facilities in the southern and south-western areas, but to the requirements of the remainder of the County.

Side by side with considering the acquisition of suitable sites for Council hospitals, negotiations have proceeded with a number of the voluntary hospitals in the County in order to investigate how far voluntary hospitals can provide, with the assistance and co-operation of the County Council, a proportion of the hospital beds needed. The conditions laid down by the County Council under which capital grants will be made to voluntary hospitals in aid of extensions, additions and reorganisation were fully set out in the report for 1935.

Finance must of necessity play a large part in hospital policy, involving, as it does, large capital sums either as grants to voluntary hospitals or for the erection of Council hospitals and it will be appreciated that such expenditure can only be spread over a period of years. During the year the Spending Committees of the Council were asked to submit a capital programme for the next five years. Naturally a large proportion of the Public Health Committee's programme dealt with capital expenditure for the provision of hospital beds. The Council found it necessary, however, to reduce all capital programmes by spreading the amount estimated for the five years over a period of eight years and indicating the most urgent items which should be proceeded with during the next three years.

The population of the County has increased year by year and at the present time it is estimated that there are between two and three thousand beds short and with the present growth of population there will probably be an additional annual shortage of 120 beds.

For the sake of convenience a resumé of the position up-to-date is set out below under the various Guardians Committee areas of the County, but it will be realised that as time goes on it is found impossible to rigidly adhere to schemes originally proposed, as new factors are constantly arising which affect the provision of hospital services and it is a matter of considerable importance that arrangements should be sufficiently flexible to adjust and amend as may become necessary.

SOUTHERN AREA.

The experience gained since the appropriation of Oldchurch Hospital, Romford, by the Public Health Committee in October, 1935, led the Council to revise its first conclusions regarding the needs of this area and the position is now as follows :—

It is proposed to extend Oldchurch Hospital in order to increase the accommodation to a total number of 1,060 beds.

This much needed accommodation cannot be provided until certain of the existing buildings are demolished. It is anticipated that the New Suttons Branch, Public Assistance Institution, Hornchurch, will be completed during 1937. This will enable

the able-bodied to be removed from Romford Institution. The vacated buildings can then be demolished to make room for the new and additional Hospital blocks.

In the meantime, however, improvements have been made in the Hospital, and particulars of the most important of these are given below :—

(a) Previously the work of admitting and examining new patients, was carried out in side wards in the Hospital, and during the year there were 8,264 patients admitted. The efficiency of this work has been greatly improved by the provision of Admission Wards in the New Continuation Treatment Department, and by the appointment of an Admission and Casualty Medical Officer, in accordance with modern practice.

(b) It would not have been possible for the Hospital to have dealt with the great demands made on the accommodation without the relief granted by the new Temporary Continuation Department. The facilities afforded by this Department have been invaluable, and have enabled the period of treatment in Hospital to be greatly shortened, with the consequent much earlier release of beds sorely needed for the admission of new patients. The work carried out in this Department is, however, growing so rapidly that it is anticipated that the room available will be much too small in the near future to cope with the demands made and the provision of a permanent Out-Patients' Department will become a matter of urgency.

(c) It is anticipated that the new Nurses' Home Extension will be completed in May, 1937. This will complete the Nurses' Home and give accommodation to a total of 404 Nurses, together with the usual Dining Rooms, Lounges, Recreation Rooms, Silence Rooms, &c. The new Training School for Nurses will be completed in July, 1937. This Training School will be one of the most modern in the country, and will provide Lecture Halls, Demonstrating Rooms, Kitchens, Bedrooms and Dining Hall for Night Nurses, &c.

The rooms now used as a Training School will then become available for the accommodation of an additional 38 patients.

(d) *Venereal Diseases Clinic.* It is hoped before the end of 1937, to establish a Venereal Diseases Clinic.

(e) *Maternity Department.* Owing to the pressure on this Department and the consequent risk of overcrowding, it became necessary to increase the number of Maternity beds from 28 to 40.

The Department was further improved by the provision and equipping of two additional Labour Wards and a new Babies' Bathroom. The Ante-Natal Department was improved by the provision of a suitable Waiting Room and Dressing Cubicles. During the year 545 cases were dealt with in the Maternity Department, and there were 1,244 attendances in the Ante-Natal Department.

(f) *X-Ray and Light Department.* The Hospital is equipped with a modern X-Ray and Light Department, and the value of the work carried out in this Department was further enhanced by the appointment

of a whole-time Resident Assistant Radiologist. The Department carried out 6,565 X-Ray examinations during the year, and there were 27,835 attendances in the Light and Massage Department.

(g) *Medical Staff.* The medical staff was augmented during the year by the appointment of a General Consulting Physician (part-time), Dr. Kenneth Shirley Smith, and Dr. F. R. Berridge was appointed whole-time Assistant Resident Radiologist in the X-Ray Department. An additional Assistant Resident Medical Officer and an additional Junior Resident Medical Officer were also appointed.

(h) *New Theatre Block.* The Hospital now undertakes approximately 3,466 operations per year—an average of over 9 per day, throughout the year. Most of these are now carried out in one main Theatre. The Minister of Health has given approval to the construction of a new suite of operating theatres, and it is hoped that these will be completed early next year. These Theatres will be of modern design, and constructed on two floors. The ground floor of the block will be utilized for Linen Stores, Sterilising Plant, Air Extractors and so on. Twin Theatres will be constructed on the first and second floors, together with Plaster Room and Galleries.

The provision of these Twin Theatres will considerably decrease the waiting time between cases, a matter of vital importance when the daily operating list assumes the dimensions common at Oldehurch.

(i) *Isolation Block.* The building allocated for the Isolation of infectious cases was of bad design and inadequate. This building was, therefore, converted into a Dispensary and the Male Tuberculosis Pavilion was reconstructed into eubicles by means of glass and wood partitions, and functions excellently as an Isolation Block.

(j) *Pathological Laboratory.* Alterations of the original Dispensary enabled this building to be used as a temporary Pathological Laboratory. The Hospital is fortunate in having a full-time Pathologist in the Department, which carried out the examination of approximately 12,000 specimens during the year.

(k) *Kitchen and Food Delivery.* Structural alterations and additional equipment was provided in the main kitchen. The delivery of meals to the wards has been considerably speeded up, and as the food is now delivered in special Thermo containers, a great improvement has resulted in this direction.

The appropriation of the Hospital removed the stigma of Poor Law, and has resulted, and will probably result still more, in an increasing demand for admission to the hospital. The hospital work proceeded under full pressure throughout the year, and constant anxiety has been caused by the demands made on the accommodation. Owing to this great demand made on the available accommodation, Oldehurch Hospital will have to fulfil the functions of a General Hospital for acute patients. The hospital is suitably staffed and equipped for this purpose. Force of circumstances has made it necessary, however, to find alternative accommodation for patients of the chronic and infirm type. This position is being alleviated by the distribution of chronic

patients to other Institutions in the vicinity, by the provision of 50 chronic beds at Little Heath House, and by the adaptation of Hainault Lodge (acquired by the County Council in 1937) in the near future to accommodate a further 50 chronic patients.

The erection of a convalescent home to serve the southern and south-western areas has been further considered and accordingly land at Pyrigo Park belonging to the Town and Country Planning Committee will be appropriated for the purpose of erecting thereon a convalescent home of 200 beds.

In March, 1937, the Ministry of Health gave formal consent to the appropriation by the Council for hospital purposes of the land at Chadwell Heath (Crowlands) now used for small holdings purposes. Plans for the erection of a children's hospital on this site with accommodation for 250 children's beds capable of extension to 500 beds, not necessarily all children's beds, have been submitted to the Ministry of Health.

As stated in the previous year's report, the Loxford Lane site, Ilford, will probably not be required for building purposes for a number of years, but in the meantime steps are being taken to execute certain works required to be undertaken on this site to make it ready for use.

The Hospital Survey Committee have given earnest consideration to the proposals of the King George Hospital, Ilford, to extend their hospital by about 300 beds to a total of 500 beds to meet the needs of the area served by the hospital. Conferences have been held between the representatives of the Council and the Hospital Board of Management to negotiate terms and conditions under which the County Council can assist in the scheme for the provision of these additional beds and it is hoped to be able to report further on the result of these negotiations in the next Annual Report.

SOUTH-WESTERN AREA.

The agreement between the County Council and the West Ham County Borough which allows the County Council the use of approximately 987 sick beds will terminate in 1955 and, presumably, by then the County Council will have to make suitable arrangements to replace these beds. In the meantime it is found impossible to keep to the prescribed figures and the County Council is indebted to the West Ham Authority for meeting them in respect to the extensive demands on the accommodation.

Negotiations are proceeding for the acquisition of a site at Oak Hill, Walthamstow, with the ultimate object of erecting thereon a hospital of 500 beds, capable of extension to 800 beds. Part of the site, on which stands the Brookfield Orthopaedic Hospital (30 beds) and Brookfield House, has already been acquired. The County Council took over this hospital from 1st December, 1936, and Brookfield House has been adapted to accommodate members of the staff of the hospital.

A site at Hermon Hill, Wanstead, will be acquired in July, 1937, for the ultimate erection of a 500-bed hospital, capable of extension to 750 beds. On this site stands the Convent of the Good Shepherd (Old Merchant Seamen's Hospital) and with a view to giving some immediate relief to the present need for beds for chronic and senile patients, consideration is now being given to adapting the existing premises so as to accommodate temporarily about 200 of these patients.

The Connaught Hospital, Walthamstow, have submitted plans of proposed extensions and reorganisation of the hospital to bring up the total number of beds to about 200, *i.e.*, an increase of about 80 beds. The result of the negotiations will be dealt with in the Report for 1937.

CENTRAL AREA.

During the year consideration was given to the appropriation by the Public Health Committee of portions of the Billericay Poor Law Institution and a report was also considered on increasing the accommodation by 25 beds immediately, of which 8 would be maternity, and to consider planning these extensions as part of a scheme for further possible extensions of the hospital unit to 150 beds (see page 119 of this report in the Public Assistance section).

Much attention has been given to the provision of a base hospital in or near Chelmsford to serve this area. As an initial step towards the consideration of providing at any rate a number of additional beds required, appropriate officers of the Council met representatives of the Chelmsford and Essex Voluntary Hospital, Chelmsford, who were considering how they could extend. The question, at the end of the year under review, hinged on whether the hospital was to become a special or a base hospital. It is pleasing to record that early in 1937, the hospital authorities accepted the general principle of it becoming a base hospital, subject to satisfactory arrangements being made with the County Council in regard to extensions which will provide a total of 250 beds if the present site can be extended.

In the meantime the proposed extensions at the Public Assistance Institution, Chelmsford, for the provision of additional sick beds has been deferred pending the result of the above deliberations, but a site of four acres belonging to the Chelmsford Golf Club, adjacent to the Institution, has been purchased, which will enable the County Council to provide the additional accommodation which it is anticipated will be required in the future.

COLCHESTER AREA.

Although the need in this area is possibly not so pressing as in some of the other areas, nevertheless, it is well known that the waiting list at the Essex County Hospital, Colchester, has been a matter causing grave disquiet to the Hospital Board. A conference was held with representatives of this hospital at the end of the year and negotiations are at present in progress with a view to co-operation between the Council and the Hospital for extensions to provide about 140 additional beds. As, however, the Hospital would not be capable of further extension and it is anticipated that future requirements will necessitate a total of 500 beds in the area being provided, a proposal is at present before the Ministry of Health regarding the acquisition of a site on the Altnacealgach Estate (Park Road, Colchester), which could be utilised for hospital services in the future.

SOUTH-EASTERN AREA.

In order to clarify the position in this area it is dealt with in two parts—(a) Thurrock Urban District portion (b) Old Rochford Hundred.

(a) *Thurrock*. The population of this area is about 70,000, and a large increase may be anticipated along the north bank of the Thames. It is estimated that 250 beds are required for Thurrock area now, with an increase to 500 beds within ten to fifteen years.

At present there are 200 beds at the Orsett Institution and about 50 beds at the Tilbury Seamen's Hospital, but neither of these is considered suitable to provide the needs of the district. The Ministry of Health is now considering a proposal of the County Council to purchase a site on the north side of the Tilbury Arterial Road, near Chadwell St. Mary, for hospital purposes.

(b) *Old Rochford Hundred*. It was at first thought that for the needs of the County population at present served by the Rochford Municipal Hospital (by agreement with the Southend-on-Sea County Borough Corporation) it would be necessary to acquire a site on which to build a new hospital, but in April, 1936, a conference between representatives of the County Council and the Southend Corporation was held, when the latter submitted particulars of a scheme for the extension of the Southend Municipal Hospital, which will ultimately provide accommodation for 911 patients and which they are advised will suffice for the whole of the old Rochford Hundred area for a number of years to come. The acquisition of a site by the County Council has therefore been deferred pending the result of the negotiations with Southend-on-Sea Corporation.

NORTH-WESTERN AREA.

Conferences were held during the year between representatives of the Council and the Saffron Walden Voluntary Hospital as a result of which an agreement with the Governors of the Hospital has been generally secured. It is proposed that the Voluntary Hospital should be enlarged to accommodate up to 70 additional beds, and that the County Council should be responsible for the maintenance of the additional beds, subject to certain conditions. The proposed addition necessitates the purchase of additional land, and it has been provisionally agreed that such land should be purchased and the necessary buildings erected and equipped by the Governors of the Hospital from monies to be advanced free of interest by the County Council, but secured on the land and buildings of the hospital. The County Council have approved the making of a loan for this purpose of not exceeding £42,000, free of interest, subject, of course, to the approval of the Ministry of Health.

At the present time the County Council have an agreement with the Hertford County Council determinable on 12 months' notice under which 51 beds are provided for Essex patients in the Bishops Stortford Institution. Towards the end of 1936 negotiations commenced with the Hertford County Council with a view to agreement being reached between the two Authorities in respect of the provision of additional accommodation on the understanding that Essex would be entitled to continue the occupation of the beds now used by them for a further period, and that the new accommodation would be occupied by Essex patients for a term of years. It is hoped to give the result of these negotiations in the report for 1937.

EPPING AREA.

Correspondence has taken place between the County Council and the Ongar War Memorial Hospital Authorities and at the time of writing an application from the hospital is being considered for a capital grant of £1,500 to meet the cost of replanning and reorganising the services of the hospital which will increase the number of beds by 8.

Convalescent Hospital.

In addition to the Convalescent Hospital proposed to be established in the Southern Area, efforts were made during the year to secure a suitable site for a second Convalescent Hospital such site to be if possible on or near the coast of Essex, and at the time of writing negotiations for a site, known as Michaelstow Hall, Dovercourt, are in progress. A scheme is under consideration for adapting the existing premises, if secured, to accommodate 50 women and children.

Other Matters.

(i) *Ambulance Facilities.* The County Ambulance Service for the co-ordination and reciprocal use of ambulances by Local Authorities is now a well established and smoothly running scheme, operating with four exceptions throughout the whole of the Administrative County. The Ambulance and Requiring Authorities have had no anomalies or difficulties requiring rectification in their respective areas and appear entirely satisfied with the working of the scheme.

The County Medical Officer of Health has been appointed to act as Chief Organiser and Controller of ambulances owned by the County Council.

(ii) *Nursing Services.* There is increasing anxiety amongst employing Authorities concerning the recruitment and training of nurses in all the various grades. It is almost impossible to get certain types of nurses and as so much depends on the quality of nursing in our Institutions and Hospitals, it is deserving of a great deal of trouble and consideration to find the best solution of this problem.

The Lancet Commission on Nursing issued its report in the early months of 1932, indicating the need for an effort by all concerned to improve the conditions of service, emoluments and amenities of the nursing profession. Reference is made in the Public Assistance Section of this report on page 121 to the County Council's scheme for the recruitment and training of assistant nurses for the chronic sick which is some attempt to deal with the present unsatisfactory state of affairs concerning properly trained workers to look after the chronic sick. The following observations might be worthy of consideration regarding the conditions of service of nurses under the different headings :—

(a) WORKING HOURS OF NURSES.

The working hours of nurses have received considerable publicity recently and have been the subject of comment in the lay press and amongst the general public, as well as amongst those actually concerned. A Bill has been introduced into Parliament dealing with the same question.

The Chief Medical Officer of the Ministry of Health, in his Report for 1935, draws special attention to the subject, urging local authorities to improve nurses' working conditions and not to refrain from doing so "merely because there is no open protest from the nursing staff and no definite breakdown in the nursing service."

Many authorities have already been successful in bringing into general use a 54 or even a 51 hour week, but I think ultimately we shall have to adopt a 48 hour week. If the authorities do not do this of their own volition, I believe that sooner or later a crisis will occur in the nursing profession, and something will be hurriedly put into practice which may not be so satisfactory as if we had deliberately adopted a settled policy of improving the existing state of affairs.

(b) BRIDGING THE GAP.

A great difficulty in recruiting nurses is the bridging of the gap between school leaving age and the age when a girl is old enough to enter Hospital (19 is quite early enough), but up to the present a complete solution has not been found.

Various Authorities have adopted schemes for giving suitable applicants scholarships so as to spend profitably the intervening period in domestic and preliminary nursing training and becoming acquainted with the work of the Public Health Departments. It should not be beyond the wit of man to devise ways and means of usefully employing girls of 17 plus, until the age of 19, so as not to squander the enthusiasm which many of them feel for entering the nursing profession.

(c) LIVING OUT FOR TRAINED STAFF.

It is being increasingly recognised that one of the reasons for the difficulty in obtaining adequate nursing (and domestic staff) is the fact that they have to live in. Although the residential accommodation provided for the nurses in most hospitals has greatly improved, the restrictions imposed by residence in a Nurses' Home are often the cause of much discontent.

The strict discipline of the hospital and the Nurses' Home are necessary for the young probationer, though often difficult for her to understand, especially if she is fresh from school, where the sole purpose has been to educate her and to cater for her welfare. The Hospital is maintained to nurse the sick and the training of nurses may be a relatively minor consideration. The issues at stake in hospital are much graver than at school—hence there must be strict discipline.

Accordingly probationers should be resident with single bedrooms, recreation rooms, quiet rooms for study, a visitor's room in which they can receive guests, male or female (and give them tea if necessary), a smoking room, dining room with tables for 4 to 6 persons, shampoo room, a service kitchen for making tea and a laundry for washing small personal articles. Bicycle sheds and tennis courts are necessary.

But for fully trained staff the question of non-residence should be considered though it has several disadvantages from the hospital point of view. The chief disadvantage is in the event of sickness, of which there is more amongst staff who live out, owing probably to the fact that they do not always get such good or regular meals or adequate hours of sleep. Another disadvantage is that they are not so punctual. Moreover, the influence of trained staff on the probationers in the Nurses' Home is lost and the staff living out do not enthusiastically enter into the social functions of the hospital. Non-resident staff for the most part enjoy life out and this more particularly applies to the young members of the senior staff. They should have an adequate non-resident allowance, plus meals when on duty to enable them to maintain a standard of living approximating to that which they would enjoy in the Nurses' Home of the Hospital.

(d) SALARIES AND PROMOTION.

The salaries of trained nurses should be sufficiently attractive to induce the right type of girl to enter the profession and should be at least comparable with those paid to teachers. The probationers' salaries should be sufficient to ensure that they are self-supporting.

In addition to salary there should be other concessions made to trained staff, such as relaxation of rigid discipline in the Home, attractive quarters, increased facilities for social intercourse outside the hospital, free midwifery training, Scholarships for special courses, such as King's College Course for Sister Tutors, King's College Course for Dietitians, Training as a Nurse Almoner, Massage Training, Health Visitors' Training, Training in Hospital administration, Occupational Therapy, &c.

There should be created a larger number of the higher posts with corresponding improved status and increased maximum of salaries.

(e) PENSION.

It is hoped that all local government officers, including Nurses, will be compulsorily pensionable, and it is essential that pension rights should be freely transferable between Nurses inside and outside the municipal services.

(f) RECREATION.

This includes holidays, off duty hours, games and other social amenities.

All these questions and others were considered by a Joint Committee of the County Councils Association and the Association of Municipal Corporations which was set up in 1932 and reported at the end of 1934.

On the question of salaries they reported that it is "neither practicable nor desirable to prescribe scales of salaries for general application throughout the country." They did, however, "express the opinion that lack of adequate remuneration deters many potential candidates of the right type from entering the profession."

REPRESENTATIVE CONSULTATIVE COMMITTEE—BRITISH MEDICAL ASSOCIATION.

This Committee continues to serve its function of friendly and helpful co-operation between the medical profession of the County and the Public Health Department.

In the twelve months under review two meetings were held at which discussions took place in connection with the Free Choice of Doctor System ; Vaccination Fees ; Medical Staffing of new County Hospitals ; Air Raid Precautions ; Supervision of Toddlers ; Examination of Employees ; Nursing Homes Registration Act ; Midwives Act, and other miscellaneous matters.

PART II.

TUBERCULOSIS.

Notifications.

The following tables supply the necessary statistical information relating to the work done under the County Tuberculosis Scheme during 1936, and I am indebted to Dr. W. L. Yell for the general remarks which follow the tables :—

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.

(a) A summary of the notifications made in the Administrative County of Essex during the period 1st January, 1936, to 31st December, 1936, is given below :—

TABLE X.

		FORMAL NOTIFICATIONS.												Total Notifica- tions.	
		Primary Notifications of New Cases of Tuberculosis.													
		Age Periods.											Total (all ages)		
		0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65			
Pulmonary, Males	...	1	3	7	13	35	55	132	116	103	53	18	535	613	
..	Females	...	1	4	7	12	78	96	145	97	39	19	12	509	510
Non-Pulmonary, Males	..	1	27	61	44	20	11	14	10	6	4	1	198	215	
..	Females...	1	16	35	26	12	14	25	15	6	5	3	158	177	

(b) The following summary shows the new cases which came to the knowledge of the Medical Officers of Health during the above-mentioned period, otherwise than by formal notification :—

	Age periods.											Total.
	0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65—	
Pulmonary, Males	—	1	3	4	6	14	16	16	8	6	3	77
„ Females	—	—	—	3	6	16	19	14	5	4	—	67
Non-pulmonary, Males	—	3	6	5	—	2	4	1	—	3	—	24
„ Females	1	3	1	1	2	2	5	—	—	—	—	15

The sources from which information as to the above-mentioned cases was obtained are shown below :—

Source of Information.	No. of Cases.	
	Pulmonary.	Non-Pulmonary.
Death Returns } from Local Registrars	13	4
} transferable deaths from Registrar-General	4	5
Posthumous Notifications	7	3
"Transfers" from other areas (other than transferable deaths)	34	26
Other Sources (Forms I and II)	26	1

TABLE XI.

NOTIFICATION REGISTER.

	Pulmonary.			Non-pulmonary.			Total Cases.
	Males	Females	Total	Males	Females	Total	
Number of cases of Tuberculosis remaining at the 31st December, 1936, on the Registers of Notifications kept by District Medical Officers of Health in the County.	3655	3047	6702	1625	1458	3083	9785
Number of cases removed from the Registers during the year by reason <i>inter alia</i> of:—							
1. Withdrawal of notification...	31	31	62	16	10	26	88
2. Recovery from the disease	97	102	199	94	88	182	381
3. Death	441	302	743	70	52	122	865

TABLE XII.

SHOWING ATTACK AND DEATH-RATES FROM TUBERCULOSIS IN THE ADMINISTRATIVE COUNTY OF ESSEX.

YEAR.	Pulmonary Tuberculosis.				Non-Pulmonary Tuberculosis.				Tuberculosis (All Forms).			
	Noti-fica-tions.	Rate per 1,000 Pop.	Deaths.	Rate per 1,000 Pop.	Noti-fica-tions.	Rate per 1,000 Pop.	Deaths.	Rate per 1,000 Pop.	Noti-fica-tions.	Rate per 1,000 Pop.	Deaths.	Rate per 1,000 Pop.
1912-16	Not		851	0.86	Not		269	0.27	Not		1120	1.13
1917-21	avail	able	752	0.89	avail	able	199	0.24	avail	able	951	1.13
1922-26	1110	1.16	656	0.69	320	0.34	148	0.15	1430	1.50	804	0.84
1927-31	1110	1.00	710	0.64	382	0.34	141	0.13	1492	1.34	851	0.77
1932	1188	0.96	683	0.55	425	0.34	165	0.13	1613	1.30	848	0.68
1933	1262	0.99	680	0.53	453	0.35	135	0.11	1715	1.34	815	0.64
1934	1190	0.92	654	0.50	409	0.31	114	0.09	1599	1.23	768	0.59
1935	1041	0.79	604	0.46	314	0.24	113	0.08	1355	1.03	717	0.54
1936	1044	0.78	600	0.45	356	0.26	126	0.09	1400	1.04	726	0.54

TABLE XIII.

SHOWING DEATHS FROM TUBERCULOSIS REGISTERED WITH LOCAL REGISTRARS OF BIRTHS AND DEATHS IN THE ADMINISTRATIVE COUNTY DURING 1936, AND PARTICULARS REGARDING NOTIFICATION UNDER THE PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS (*Transferable Deaths are excluded*).

DISTRICTS.	No. of Deaths.	When Notified.							No Information.
		After Death	Within 1 month of death.	Within 3-6 months of death.	Within 6-12 months of death.	Within 1-2 years of death.	Within 2-4 years of death.	More than 4 years before death.	
Urban.									
Barking B.	26	...	5	1	2	3	6	3	6
Bentley	3	...	...	...	...	...	1	1	1
Billericay	25	1	7	2	2	3	1	2	7
Braintree & Rocking ...	5	1	...	...	1	...	...	2	1
Brentwood	7	...	1	...	...	1	...	...	5
Brighthelmsea	2	...	...	...	...	...	...	...	2
Burnham-on-Crouch ...	2	...	...	...	1	1	...	...	...
Canvey Island	9	...	2	...	1	...	...	2	4
Chelmsford B.	6	...	1	...	1	1	1	...	2
Chigwell	5	...	...	...	...	1	...	2	2
Chingford	19	1	6	1	2	5	...	1	3
Clacton-on-Sea	9	1	1	...	1	...	2	1	3
Colchester B.	31	1	4	1	...	7	3	6	9
Dagenham	43	1	9	5	3	4	11	3	7
Epping	7	...	...	...	2	...	1	1	3
Frinton & Walton	5	...	1	...	...	...	...	1	3
Halstead	7	...	1	...	...	2	...	2	2
Harwich B.	12	1	3	...	1	1	3	1	2
Hornchurch	32	...	6	3	2	3	5	2	11
Ilford B.	59	2	9	2	9	5	8	14	10
Leyton B.	52	...	9	2	5	15	2	9	10
Maldon B.	3	...	1	...	...	...	...	...	2
Rayleigh	3	1	...	...	...	...	1	...	1
Romford	22	1	3	1	2	1	4	4	6
Saffron Walden B. ...	2	...	1	...	...	...	...	...	1
Thurrock... ..	38	1	4	2	3	3	6	7	12
Waltham Holy Cross ...	2	...	...	...	...	...	...	1	1
Walthamstow B.	70	5	12	7	10	10	11	5	10
Wanstead & Woodford ...	14	1	1	...	1	2	1	2	6
West Mersea ... ..	...	...	...	...	...	...	...	...	...
Witham	3	...	1	...	...	1	1	...	...
Wivenhoe	3	...	1	...	...	...	...	1	1
Totals	526	18	89	27	49	69	68	73	133
Rural.									
Braintree	6	...	...	...	1	...	1	1	3
Chelmsford	5	...	1	...	1	1	...	...	2
Dunmow	3	...	...	...	...	...	...	1	2
Epping	3	...	1	...	...	1	1	...	...
Halstead	4	...	1	...	...	...	...	2	1
Lexden & Winstree ...	7	...	...	...	2	1	...	3	1
Maldon	3	...	...	...	1	...	...	2	...
Ongar	2	...	...	...	...	...	...	1	1
Rochford	10	...	1	1	1	1	1	1	4
Saffron Walden ... ..	...	...	...	...	...	...	...	...	...
Tendring	7	...	1	...	2	1	...	...	3
Totals	50	...	5	1	8	5	3	11	17
URBAN DISTRICTS	526	18	89	27	49	69	68	73	133
RURAL DISTRICTS	50	...	5	1	8	5	3	11	17
ADMINISTRATIVE COUNTY...	576	18	94	28	57	74	71	84	150

ATTACK AND DEATH RATES. Table XII on page 72 shows the attack and death rates for 1936, and there is little variation from the figures for 1935. The notification rate for all forms of Tuberculosis has risen from 1.03 to 1.04 per thousand, while the death rate remains the same.

In respect to Pulmonary Tuberculosis it will be noticed that although the number of notifications has increased, the attack rate has further declined, and this is due to the increased population. The number of deaths, and the death rate are both lower than last year, and the lowest recorded in Essex.

The notifications of Non-Pulmonary Tuberculosis include those of tuberculous glands, and conclusions based on these notifications are unwise owing to factors concerned in diagnosis.

From Table XIII it will be observed that still a large number of patients die from Tuberculosis who have not been notified under the Public Health (Tuberculosis) Regulations, and also that a large proportion die within 3 months of notification. The importance of notification being made as early as possible must again be stressed as by means of notification all patients are certain to be given the opportunity of availing themselves of the facilities provided by the County Council under their Tuberculosis Scheme. In 26% of cases dying from Tuberculosis, notification could not be traced.

New Cases and Mortality during 1936.

The following table is supplied at the request of the Ministry of Health :—

TABLE XIV.

Age Periods.	New Cases.				Deaths.			
	Pulmonary.		Non-pulmonary.		Pulmonary.		Non-pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0—	—	—	—	2	—	1	2	5
1—	4	4	30	19	3	1	13	15
5—	10	7	67	36	}	3	3	19
15—	17	15	49	27				
20—	41	84	20	14				
25—	69	112	13	16	}	42	61	14
35—	148	164	18	30				
45—	132	111	11	15				
55—	111	44	6	6	67	27	2	5
65 and upwards	59	23	7	5	50	10	4	3
	21	12	1	3	25	7	4	1
	612	576	222	173	347	253	75	51

Dispensaries. (Table XV on pages 76 and 77).

In the Annual Report for 1935 reference was made to the employment of " Combined " Medical Officers in the rural districts, and whole-time Tuberculosis Officers in the Extra-Metropolitan Area. The advisability of appointing in the densely populated districts one or two senior officers assisted by juniors had been considered, but " error is opinion in the making " and experience has shown that the whole-time Tuberculosis Officer must be a fully competent clinician, with special knowledge of the branch of medicine which he has adopted, and new and " consultation " cases must be seen by an

Officer of this standing. His opinion should be one that the general practitioner not only will respect, but will seek early. By ensuring that such opinion is available in *all* cases, we are most likely to secure early diagnosis on which the effectiveness of treatment so greatly depends, and exact diagnosis which is the foundation of success in all anti-tuberculosis work, both curative and preventive. That the best results are to be achieved and dissipation of money and effort avoided by a specialist staff with full diagnostic facilities is worth reiteration. It has been considered expedient to sub-divide the Southern Area of the Administrative County into two districts—Ilford and Barking, and Romford and Dagenham. Thus, in the Extra-Metropolitan area we now have four separate tuberculosis districts, each with a whole-time Officer in full local charge.

There is an increase of 85 cases on the dispensary register. The increase in 1935 was 246, but whereas there were 131 cases still under observation on 31st December, 1935, the corresponding figure for 1936 is only 76. This low figure is a measure of the accuracy and rapidity with which diagnosis can be made now, and offers a contrast to the state of affairs a few years ago when diagnostic, particularly X-Ray, facilities, were less readily available. Seventy-six is a figure that cannot be expected to fall much lower in an Administrative County of this size. The register shows an increase of 145 T.B. plus cases, and 2,000 more attendances were made. This does not necessarily represent an increased incidence of disease, but may be due to some extent to an increasing proportion of the tuberculous seeking to avail themselves of the services provided by the County.

It might seem that much unnecessary work is done at these dispensaries when nearly 2,500 patients were examined during the year and found to be non-tuberculous. Tuberculosis is an insidious and imitative disease, often sailing under false colours, and the suspicion that the tubercle bacillus is responsible for ill-health will often prove unfounded. The high figure is an index of the sharpness of the look-out that is kept and of the realisation that it is folly to wait until tuberculosis is manifest. It may be of less importance to find tuberculosis absent than to detect its presence, but it is infinitely important to the individuals who can be so re-assured, and the sum total is a considerable, if incidental, contribution to the public well-being.

It is gratifying to note that there has been an increase both in personal and "other" consultations, although it be not large. Essex did not compare unfavourably in this respect in 1935 with England and Wales as a whole, and with certain other Authorities, but any increase in co-operation with general practitioners is to be welcomed. (Four hundred-and-eighteen more home visits were paid by Tuberculosis Officers).

At the end of 1935 the decline in the employment of sputum examination for tubercle bacilli gave cause for concern, and comparison with the returns for similar areas confirmed its relative neglect in Essex. It appeared that X-Ray and sputum examination might fall out in inverse proportion, and the more frequently were the shadows in the X-Ray film available the less often would the substance of infection in the sputum be sought. But the developments of the past few years rightly have given to the indirect evidence of the photograph the first place in diagnosis and prognosis, and therefore in prevention and treatment, and it has a story to tell often when no bacilli can be demonstrated in the sputum even with the laryngeal mirror technique

TABLE XV.

(a) SHOWING THE WORK OF THE DISPENSARIES DURING 1936.

DIAGNOSIS.	PULMONARY.				NON-PULMONARY.				TOTAL.				GRAND TOTAL.	
	Adults.		Children		Adults.		Children		Adults.		Children.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
A.—NEW CASES examined during the year (excluding contacts):—														
(a) Definitely tuberculous ...	416	306	11	9	28	45	74	46	444	351	85	55	935	
(b) Diagnosis not completed ...	...	...	...	...	...	...	...	...	8	20	17	18	63
(c) Non-tuberculous ...	...	...	...	...	...	...	...	...	502	483	229	203	1417
B.—CONTACTS examined during the year:—														
(a) Definitely tuberculous ...	22	33	...	3	..	4	9	7	22	37	9	10	78	
(b) Diagnosis not completed ...	...	...	...	...	...	...	...	...	...	4	3	6	13
(c) Non-tuberculous ...	...	...	...	...	..	...	...	...	174	311	265	264	1014
C.—CASES written off the Dispensary Register as														
(a) Recovered ...	43	50	9	2	9	22	46	10	52	72	55	42	221	
(b) Non-tuberculous (including any such cases previously diagnosed and entered on the Dispensary Register as tuberculous) ..	...	...	...	...	...	...	...	...	680	798	498	475	2451
D.—NUMBER OF CASES on Dispensary Register on Dec. 31st:—														
(a) Definitely tuberculous ...	2098	1618	101	84	213	308	524	398	2311	1926	625	482	5344	
(b) Diagnosis not completed ...	...	...	...	...	...	...	...	..	8	24	20	24	76

1. Number of cases on Dispensary Register on January 1st ...	5245	8. Number of visits by Tuberculosis Officers to homes (including personal consultations) ...	2105
2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years	456	9. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes ...	23029
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of" ...	663	10. Number of (a) Specimens of sputum, &c., examined ...	2298
4. Cases written off during the year as dead (all causes) ...	466	(b) X-ray examinations made in connection with Dispensary work	4271
5. Number of attendances at the Dispensary (including contacts) ...	19325	11. Number of "recovered" cases restored to Dispensary Register and included in A (a) and A (b) above ...	12
6. Number of insured persons under domiciliary treatment on the 31st December	489	12. Number of "T.B. plus" cases on Dispensary Register on December 31st ...	2287
7. Number of consultations with medical practitioners:—			
(a) Personal ...	602		
(b) Other ...	3032		

(b) NUMBER OF DISPENSARIES FOR THE TREATMENT OF TUBERCULOSIS
(excluding centres used only for special forms of treatment).

Provided by the Council	...	...	...	...	23
Provided by Voluntary Bodies	...	...	...	...	Nil.

(c) NUMBER OF BEDS AVAILABLE FOR THE TREATMENT OF TUBERCULOSIS ON
THE 31ST DECEMBER IN INSTITUTIONS BELONGING TO THE COUNCIL.

Name of Institution.	For Pulmonary Cases.		For Non-Pulmonary Cases.		Total.
	Adults.	Children under 15.	Adults.	Children under 15.	
Black Notley	75	+10	M. 28 F. +27	+52	192
Harold Court	90	...	...	...	90
High Beech ... ..	...	...	...	32	32
Epping Institution (Tuberculosis Block)	38	2	2	...	42
Oldchurch Hospital, Romford ...	31	...	20	19	70
† These numbers fluctuate according to requirements.					
<i>Public Assistance Institutions—</i>					
Billericay	2	...	...	...	2
Colchester	1	...	...	...	1
Maldon ... ..	...	...	2	...	2
Orsett	7	...	...	...	7
Stanway	3	...	...	...	3
Tendring	7	...	1	1	9

now in use in our sanatoria. These are two complementary, not mutually exclusive, methods of investigation. The 1936 returns show 2,298 sputum examinations, compared with 1,363 for 1935, while X-Ray examinations (films) have increased from 2,952 to 4,271.

Institutional Accommodation. (Tables XVI and XVII on pages 79, 80 and 81).

During the past year attention has been drawn to the number of pregnant women suffering from tuberculosis in whom the activity or extent of the disease, in the opinion of the clinicians concerned, rendered surgical termination of pregnancy advisable. Such patients must be dealt with in the early stages of pregnancy, and their admission to hospital (Oldchurch) must not be hindered by a lengthy waiting list. After operation they are treated in the hospital Tuberculosis Pavilion, or sent to sanatorium as appears indicated in each individual case, but as they are infectious they cannot be admitted to the general maternity wards. In another group, although surgical termination might have been considered had the patient been seen earlier, pregnancy has been found to be so far advanced that operation, other than caesarean section under spinal anaesthesia at term, has been contra-indicated. In one of the pavilions at the enlarged Black Notley Sanatorium there will be a one-bed maternity unit consisting of a lying-in cubicle, labour ward, duty room with cot, and separate sanitary annexe. This it is hoped will be of great service to a third group in whom it is considered that parturition is not likely to have specially adverse effects.

The cost of anti-tuberculosis action may vary from the small one incurred in the display of notices requesting the public to refrain from spitting, and there can be no doubt that the decline in the habit of expectoration has had a beneficent influence in the prevention of tuberculosis, to that of equipping a modern thoracic surgery unit. The return will not vary in direct proportion to the financial outlay, but the burden of tuberculosis will not be lifted by one corner and the component parts of the scheme have their respective places. Approximately three-quarters of the direct expenditure on tuberculosis in Essex goes to meet the cost of institutional treatment.

The provision of beds is not the simple provision of a number, but of a number composed with due regard to the claims of various groups of patients, classified according to age, sex and type and location of disease, who are recommended for institutional treatment. It is manifestly wrong to allocate the early case to a ward of dying patients as it is wrong and uneconomic to send that patient in the late stages of consumption, whose need is nursing, to a distant institution equipped at great expense with every modern requirement for specialised treatment. The pressure on beds varies throughout the year, particularly from group to group, and this is reflected in the rise and fall in the waiting list. (It has become almost an axiom in Essex that if beds are available patients will be forthcoming, and despite the increase in beds provided, saturation point has not yet been reached). A lengthy waiting list neutralises the benefits of early diagnosis and is most likely to have adverse effects on the following :—the patient (male or female) with disease of the acute adolescent type, and the man, woman or child suffering from bone and joint tuberculosis. In such cases delay in admission to sanatorium will alter the prognosis materially, and for them an endeavour should be made to have a waiting list of negligible proportions. The need for sufficient accommo-

TABLE XVI.

(a) SHOWING THE EXTENT OF RESIDENTIAL TREATMENT AND OBSERVATION DURING THE YEAR 1936 IN INSTITUTIONS (OTHER THAN PUBLIC ASSISTANCE INSTITUTIONS).

		In Institu- tions on Jan. 1st. (1)	Admitted during the year. (2)	Discharged during the year. (3)	Died in the Insti- tutions. (4)	In Institu- tions on Dec. 31st. (5)
Number of doubtfully tuberculous cases ad- mitted for observation	Adult males	1	45	40	—	6
	Adult females	5	30	32	—	3
	Children	26	94	104	1	15
	Total	32	169	176	1	24
Number of patients suffering from pulmon- ary tuberculous	Adult males	296	482	392	93	293
	Adult females	226	432	358	72	228
	Children	9	19	16	—	12
	Total	531	933	766	165	533
Number of patients suffering from non- pulmonary tuberculosis	Adult males	41	61	59	4	39
	Adult females	43	62	48	2	55
	Children	114	151	133	1	131
	Total	198	274	240	7	225
GRAND TOTAL		761	1376	1182	173	782

(b) SHOWING THE EXTENT OF RESIDENTIAL TREATMENT PROVIDED DURING THE YEAR 1936 IN PUBLIC ASSISTANCE INSTITUTIONS.

		In Institu- tions on Jan. 1st. (1)	Admitted during the year. (2)	Discharged during the year. (3)	Died in the Insti- tions. (4)	In Institu- tions on Dec. 31st. (5)
Number of patients suffering from pulmon- ary tuberculosis	Adult males	15	49	30	21	13
	Adult females	12	36	30	11	7
	Children	—	6	3	3	—
	Total	27	91	63	35	20
Number of patients suffering from non-pul- monary tuberculosis	Adult males	—	6	3	2	1
	Adult females	1	4	2	1	2
	Children	1	2	1	1	1
	Total	2	12	6	4	4
GRAND TOTAL		29	103	69	39	24

(c) SHOWING THE RESULTS OF OBSERVATION OF DOUBTFULLY TUBERCULOUS CASES DISCHARGED FROM INSTITUTIONS DURING 1936.

Diagnosis on discharge from observation.	FOR PULMONARY TUBERCULOSIS.						FOR NON-PULMONARY TUBERCULOSIS.						TOTALS.		
	Stay under 4 weeks.			Stay over 4 weeks.			Stay under 4 weeks.			Stay over 4 weeks.					
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous	3	5	2	7	7	8	—	2	3	1	—	15	11	14	23
Non-tuberculous ..	14	4	3	9	7	11	2	3	11	2	3	48	27	17	73
Doubtful	1	—	—	1	1	2	—	—	—	—	—	1	2	1	3
Died	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1
TOTALS	18	9	6	17	15	21	2	5	14	3	3	64	40	32	105

TABLE XVII.

SHOWING THE IMMEDIATE RESULTS OF TREATMENT OF DEFINITELY
TUBERCULOUS PATIENTS DISCHARGED FROM INSTITUTIONS DURING
THE YEAR, 1936.

Classification on admission to the Institution.	Condition at time of discharge.	Duration of Residential Treatment in the Institution.															GRAND TOTALS.	
		Under 3 months but exceeding 28 days.			3-6 months.			6-12 months.			More than 12 months.			TOTALS.				
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		
PULMONARY TUBERCULOSIS.	Class T. R. minus.	Quiescent ...	16	30	...	23	26	6	14	24	2	7	9	5	60	89	13	162
		Not quiescent ...	13	8	...	11	4	...	10	10	...	1	6	...	35	28	...	63
		Died in Institution	7	1	...	4	...	...	...	...	...	...	...	...	11	1	...	12
	Class T. B. plus. Group 1.	Quiescent ...	11	4	...	4	3	...	9	3	...	2	2	...	26	12	...	38
		Not quiescent ...	4	2	...	5	3	...	1	2	...	1	1	...	11	8	...	19
		Died in Institution	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	1
	Class T. B. plus. Group 2.	Quiescent ...	14	28	...	21	30	...	24	27	...	16	15	...	75	100	...	175
		Not quiescent ...	47	25	...	35	29	...	40	30	...	13	14	...	135	98	...	233
		Died in Institution	17	25	...	16	7	...	8	6	...	10	3	...	51	41	...	92
	Class T. B. plus. Group 3.	Quiescent ...	...	...	...	1	2	...	1	...	...	...	1	...	2	3	...	5
		Not quiescent ...	4	1	...	5	2	...	4	2	...	...	...	...	13	5	...	18
		Died in Institution	5	1	...	2	9	...	2	2	...	2	...	...	11	12	...	23
TOTALS (pulmonary) ...		138	125	...	127	115	6	113	106	2	53	51	5	431	397	13	841	
NON-PULMONARY TUBERCULOSIS.	Bones and Joints.	Quiescent ...	2	2	3	4	4	7	6	6	15	5	2	23	17	14	48	79
		Not quiescent ...	2	...	...	3	...	...	1	1	...	1	1	...	7	2	...	9
		Died in Institution	...	...	1	1	1	...	...	...	...	1	...	...	2	1	1	4
	Abdominal.	Quiescent ...	4	2	1	1	...	7	...	1	2	...	1	1	5	4	11	20
		Not quiescent ...	...	1	1	...	1	...	...	1	...	...	...	...	...	3	1	4
		Died in Institution	1	...	...	...	1	...	...	...	...	...	...	...	1	1	...	2
	Other Organs.	Quiescent ...	1	6	...	3	6	1	1	...	1	1	1	...	6	13	2	21
		Not quiescent ...	2	...	...	1	...	1	...	3	1	1	1	...	4	4	2	10
		Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Peripheral Glands.	Quiescent ...	3	5	25	2	1	15	2	1	14	1	...	5	8	7	59	74
		Not quiescent ...	...	1	1	...	...	...	...	...	...	...	...	...	...	1	1	2
		Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS (non-pulmonary) ...		15	17	32	15	14	31	10	13	33	10	6	29	50	50	125	225	

dation for the advanced case should require no stressing. It should be near home, and it should provide a haven which the beaten consumptive will not be loath to seek and in which he will be glad to stay. The advanced stages of the disease are the most infectious, and 70 per cent. of deaths from pulmonary tuberculosis in Essex take place at home, frequently in surroundings which make an unwelcome legacy of disease all the more likely.

The delay in the fall in death rate in the 15—25 (pulmonary) age group in women led to special efforts being made to deal with that class at Black Notley, and the extended sanatorium should meet the needs of those and of "surgical" women and children. Broomfield Court Sanatorium should be open in three years' time to cater for the group which gives rise to the peak in the death rate at an age some 10 years later in men—a group for which Harold Court Sanatorium and Victoria Park Hospital have done so well in the past, and at Broomfield also the accommodation for "surgical" men should suffice.

Advanced cases are cared for at Ilford and Colchester Isolation Hospitals, Epping Institution, the Oldchurch and London Fever Hospitals, while certain moribund patients are admitted to homes for advanced cases in London. The London Fever Hospital has for 10 years given admirable service to men suffering from chronic advanced disease. Patients admitted originally to such institutions who show a requisite improvement are transferred to the sanatoria, for not everyone admitted to those hospitals fulfils the grave prognostication given at the outset. In this way Ilford Sanatorium has been used largely as an annexe to Harold Court, while similar co-operation exists between Merivale and Black Notley. Those requiring prolonged rest in bed are interchanged with others whose improvement has warranted graduation to a class with more favourable outlook.

But the real problem in provision of beds remains virtually untouched until the intermediate (pulmonary) group is dealt with. This is made up of patients whose disease is neither early nor advanced, and in the majority tuberculosis for one reason or another, has remained undetected until the early stage has passed. It is the biggest group, and by reason of numbers, infectivity and chronicity it holds the core of the tuberculosis problem. Of what use is it to provide elaborate schemes for early diagnosis if this, the main source, reservoir and supply of tuberculosis, remains intact, or if through lengthy waiting lists early cases are allowed to drift into it? The group is a heterogeneous one in which will be found patients still bordering on the early with some passing irresistibly to the realms of the advanced in which there is no standing still. The response to treatment cannot be predicted with certainty always. Treatment adequate in duration will return some to work and to economic self-sufficiency, more will be unable to support themselves without assistance, but will return home, their disease stabilised, their outlook adjusted to the new level at which they must live, and with a wholesome knowledge of how to avoid spreading infection to others. For some the path is inevitably and steeply down hill. Lack of provision for them must result in a wastage of valuable lives, and the creation of chronic foci of infection by which tuberculosis is propagated until the advanced bed receives them. They are not the cases from which the clinician expects brilliant results, but their treatment in hospital or sanatorium is often of curative and always of preventive value. These are treated in the available institutions, judged most suitable to their clinical conditions.

mainly Chingford, Colchester, and Merivale in the case of women, and Harold Court and Preston Hall in the case of men, but separation into groups is never clear cut. It is anticipated that the additional accommodation which will be available within the County when the extensions at Black Notley and the new sanatorium at Broomfield Court are completed, will enable the County Council to meet the needs as never before of the groups referred to above, including this difficult intermediate group, and to reduce materially the commitments for maintenance in outside institutions generally. It will also allow patients to be selected for admission to the colonies at Papworth and Preston Hall as potential colonists instead of long-term patients.

During 1936 the average number of beds occupied, excluding those at Oldchurch Hospital, was 710, the corresponding figure for 1935 being 670. The number of beds occupied on 31st December has risen as follows :—

			Tuberculosis Scheme.		Public Assistance.		Total.
1931	..	..	464	..	120	..	584
1932	..	..	491	..	124	..	615
1933	..	..	536	..	128	..	664
1934	..	..	601	..	138	..	739
1935	..	..	644	..	146	..	790
1936	..	..	782	..	24	..	806

The increasing total is obvious, but the discrepancy in the relative proportions in Tuberculosis and Public Assistance Institutions in the past two years requires explanation. In the 1936 returns, at the request of the Ministry of Health, the beds occupied by tuberculosis patients at Epping Institution (42) and Oldchurch Hospital (70), are shown for the first time as "tuberculosis scheme" and not as "Public Assistance" beds. To this must be added the loss of beds at Orsett Institution, which necessitated that alternative accommodation should be available at Thurrock Isolation Hospital early in 1937. Thus the extent of increase shown under the Tuberculosis Scheme is artificial. Nevertheless, it is an undoubted fact that year by year fewer patients are admitted to institutions on Relieving Officers' orders, and this is as it should be. When all recommendations for admission to institutions go through the Central Medical Department, then and then only will admission be regulated, the relative claims of cases be fully considered, and patients allocated to the institutions best suited to them. Immediate admission through the Relieving Officer should be reserved for emergency only.

(1) COUNTY SANATORIA.

(a) BLACK NOTLEY SANATORIUM. Dr. M. C. Wilkinson, Medical Superintendent of the Black Notley Sanatorium, reports as follows on the work carried out during 1936 :—

During 1936 progress was made with the new extensions. The alterations to the kitchen have been completed, with the result that the kitchen and its annexes are now spacious and well equipped. The new Nurses' Home, Ward Blocks, and alterations to the existing Power House, Operating Theatre and Artificial Light Department are in process of completion.

Treatment of Pulmonary Tuberculosis. (Consulting Physician : Dr. BURTON WOOD). During the year 1936, 157 cases admitted for the diagnosis or treatment of pulmonary tuberculosis were discharged from the Sanatorium. As in former years, the majority of these patients belonged to the adolescent and young adult group of female patients, of which the disease takes its heaviest toll. With modern measures of treatment to the parts of the lungs affected, and with a long period of bed rest in the open-air, however, considerable success has been achieved. Seventy-two per cent. of patients in the young adult group were discharged with the disease quiescent.

The County Medical Officer has arranged for the transfer of a certain number of patients, where necessary, to the Merivale Sanatorium, Sandon. Dr. Marrett is there able to continue in selected cases courses of treatment begun at Black Notley. As a result, more beds have been available at Black Notley for patients who require active treatment by artificial pneumothorax or other means. The number of cases treated by artificial pneumothorax increased from 91 in 1935 to 135 in 1936 ; the increase in the number of refills given was from 1,257 in 1935 to 1,858 in 1936.

An outstanding feature of the treatment of patients suffering from pulmonary tuberculosis during the year has been the introduction by Dr. Burton Wood of the treatment of special cases by thoracoscopy and division of adhesions which has been carried out regularly at the Sanatorium, following the provision of apparatus and instruments for the purpose. This constitutes an advance in the treatment of pulmonary tuberculosis at the Sanatorium, and has been the means of producing a successful result in patients whose treatment by artificial pneumothorax was impeded by pleural adhesions. Also by the introduction of this method of treatment to the Sanatorium, a saving of time and expenditure has been effected, as such patients who were previously treated by this method had to await transfer to Victoria Park Hospital.

Particulars of treatment are as follows :—

Number of artificial pneumothorax inductions at Black Notley	32
Number of artificial pneumothorax cases under treatment :—	
In-patients	109
Out-Patients	25
	— 134
Number of refills given :—	
In-patients	1,615
Out-patients	243
	— 1,858
Number of thoracoscopy operations	6
Number of phrenic evulsions	4
Number of patients treated by gold injections	19
Number of cases treated by oleo-thorax	2
Cases transferred for thoracoplasty	1

In addition, 29 children who had been admitted for observation or treatment, were discharged from the children's medical ward. Eleven of these were found to be suffering from pulmonary tuberculosis, two from tuberculous pleurisy and one from tuberculous mediastinal glands.

Non-Pulmonary Tuberculosis. (Consulting Surgeon: Sir HENRY GAUVAIN, K.B.E.). During the year 1936, 155 patients suffering from non-pulmonary tuberculosis were discharged from the Sanatorium; 77 were adults and 78 children. Skeletal lesions were the most common. There were also large groups of patients with lesions in the abdomen, genito-urinary system and the cervical glands. Prolonged recumbency in the open-air, combined with suitable splintage is recognised as being the most effective means of curing bone and joint tuberculosis. The value of rest under Sanatorium conditions has not been so well recognised for the treatment of abdominal and genito-urinary tuberculosis, but there is no doubt as to its value. Further, the application of the principle of general as opposed to local treatment has been based on the assumption that tuberculosis is more a general disease than a local disease. With the help of modern means of diagnosis, of which radiography is the most important, this assumption is established as fact owing to the diagnosis in many cases of multiple tuberculous lesions. It is therefore also becoming more apparent to what extent surgery can be applied to the treatment of these forms of the disease which were formerly labelled "surgical tuberculosis." The most definite indications seem to be the fixation of joints by arthrodesis to prevent deformity, after the tuberculous process has been cured; the removal of tuberculous Fallopian tubes to prevent advance of the disease to the peritoneum; the excision of kidneys in which a gross ulcero-cavernous lesion has formed, and the excision of tuberculous neck glands when all periadenitis has disappeared.

Number of Operations. (Consulting Surgeon: Mr. R. REID, M.S., F.R.C.S.):—

Cystoscopic examinations	..	..	24
Excision of tuberculous glands	..	..	20
Tonsillectomy	..	..	11
Excisions of the knee	..	..	4
Bone operations—various	..	..	23
Phrenic evulsions	..	..	4
Epididymectomy or orchidectomy	..	..	3
Nephrectomy..	..	..	3
Appendicectomy	..	..	3
Amputation	..	..	1
For tuberculous sinus or abscess	..	..	28
Various	..	..	12

Immunisation against Diphtheria and Scarlet Fever. I am indebted to Dr. Cohen, who has carried out this work, for the following note :—

“ The immunisation of children to scarlet fever and diphtheria has been carried out as in the previous year. Scarlet fever immunisation is effected in most cases by four weekly injections, though a fifth injection is occasionally required.

The following summarises the results for the year ending April 1st, 1937 :—

	Tested on		Immune.		Suscept- ible.		Immunised.		Discharged before final test.		Immunisa- tion confirmed by final test.	
Diphtheria	..	76	..	17	..	59	..	51	..	19	..	32
Immunisation												
Scarlet Fever	..	80	..	33	..	47	..	31	..	5	..	26
Immunisation												

Mild and transient reactions to the injections occasionally occurred, but these were never severe.

One case of scarlet fever occurred during the year, otherwise there were no cases of infectious disease.”

X-Ray Department. (Consulting Radiologist : Dr. FRANKLIN WOOD). A high standard of radiography has been maintained during the year. There has again been a slight increase in the number of radiographic examinations made. A new departure has been the instalment of apparatus for making lantern slides from X-Ray films for demonstration purposes. By this means it will be possible to demonstrate the work to visiting doctors with greater convenience.

Number of patients X-Rayed during the year 2,000

Screening examinations (approximately) .. 12—15 per week.

Artificial Light Treatment. (Consulting Dermatologist : Dr. A. BURROWS). During 1936 the artificial light treatment department was used to its full capacity. It is at present impossible to give every patient a course of artificial light treatment during the winter, but those who most need it are treated. An intensive course is given which consists of treatments carried out five times a week for three months or more. Good pigmentation of the skin is usually obtained.

General Treatments.

Carbon Arc (iron-cored) lamps	..	1,945 treatments.
Mercury vapour lamps	..	1,408 treatments.

Local Treatments.

Infra red ray therapy	..	96 treatments.
Kromayer lamps	..	245 treatments.

Laboratory. As in former years, Miss M. D. Williams, Dispenser-Clerk, has been of great assistance in performing part of the laboratory examinations. The majority of specimens are forwarded to Dr. Beale, the County Baeteriologist. Dr. Cohen has continued to use the mirror test method of collecting sputum for examination with success, so that it has become a routine procedure at the Sanatorium.

Bacteriological examinations of sputum	120
Bacteriological examinations of urine	89
Blood counts	17
Blood sedimentation rate tests	385
Various	15
	<hr/>
	626
	<hr/>

Out-Patient Department. During 1936 out-patient attendances were as follows :—

To see Sir Henry Gauvain	45
Dr. Burton Wood's clinics	311
Attendances for A.P. refills	243
Attendances for X-Ray	90
Attendances for light treatment	101
Various	10
	<hr/>
Total number of attendanees	800
	<hr/>

Dental Treatment. Regular dental inspections and treatment have been carried out by Mr. S. K. Donaldson for all patients.

Articles published in the Medical Press on work at the Sanatorium :—

- (1) "The Mirror Test in Pulmonary Tuberculosis," by R. C. Cohen, M.D.Lond., D.P.H., and W. Burton Wood, M.D., M.R.C.P., D.P.H.—*British Medical Journal*, July 11th, 1936.
- (2) "Tuberculous Lesions in Association with Genito-Urinary Tuberculosis," by M. C. Wilkinson, M.B.Lond.—*Lancet*, February 6th, 1937.

Finally my appreeiation should be expressed of the valuable services rendered to the Sanatorium during the past year by my colleague, Dr. R. C. Cohen, and to the Matron and Nursing Staff for the high standard of nursing maintained.

Patients discharged from January 1st, 1936, to December 31st, 1936.
Pulmonary Adults.

	Quiescent.	Not Quiescent.
Pulmonary tuberculosis—ages between 14—28 years	71	27
Pulmonary tuberculosis—over 28 years ..	11	17
Observation cases discharged as negative ..	2	0
<i>Children under 14 years.</i>		
Pulmonary tuberculosis	11	1
Observation cases discharged as negative ..	14	0
Tuberculous pleurisy	2	0
Hilum tuberculosis	1	0
	<hr/> 112	<hr/> 45
Total ..	157	

Patients discharged from January 1st, 1936, to December 31st, 1936.
Non-Pulmonary Adults.

	Quiescent.	Not Quiescent.
Adenitis	9	1
Peritonitis	4	2
Cæcum	0	1
Spine	5	3
Spine and hip	1	0
Spine and sacro-iliac	1	0
Spine and glands of neck	1	0
Hip	6	1
Hip and knee	1	0
Sacro-iliac	2	0
Sacro-iliac and lungs	0	1
Knee	4	0
Shoulder	1	0
Ankle	1	0
Various	3	2
Mixed	1	2
Multiple lesions	2	1
Genito-urinary	4	5
Observation cases discharged as negative ..	8	0
Admitted as tuberculous—diagnosis not confirmed	4	0
	<hr/> 58	<hr/> 19
Total ..	77	

Patients discharged from January 1st, 1936, to December 31st, 1936.
Non-Pulmonary Children.

	Quiescent.	Not Quiescent.
Adenitis	10 ..	1
Tabes Mesenterica	15 ..	2
Peritonitis	0 ..	1
Spine	10 ..	1
Hip	9 ..	0
Knee	8 ..	0
Sacro-iliae	1 ..	0
Lupus	1 ..	0
Various	2 ..	0
Renal tuberculosis	0 ..	2
Observation cases discharged as negative ..	12 ..	0
Admitted as tuberculous—diagnosis not confirmed	3 ..	0
	—	—
	71 ..	7
Total	78	—
Total number of pulmonary cases discharged ..	157	
Total number of non-pulmonary cases discharged	155	
	—	
Total number of patients discharged ..	312	

(b) HAROLD COURT SANATORIUM. Dr. F. G. Brown, Medical Superintendent of the Harold Court Sanatorium, reports as follows on the work carried out during 1936 :—

The following table gives particulars of patients admitted and discharged during the year :—

No. of patients admitted during the year ..	205
No. of patients discharged during the year as follows :—	
Discharged home after a period of treatment	131
Transferred to Ilford Sanatorium ..	20
„ Victoria Park Hospital ..	10
„ Preston Hall	7
„ Burrow Hill Training Colony	6
„ Papworth Colony ..	2
„ Liverpool Road Hospital ..	2
„ Orsett Institution ..	2
„ Black Notley Sanatorium ..	1
„ St. Mark's Hospital ..	1
„ Maldon Institution ..	1
„ Stanfield Sanatorium ..	1
„ Royal National Sanatorium, Bournemouth ..	1
No. of patients died during the year ..	1

Patients who were discharged with disease quiescent, or who had made material improvement—71 per cent.

Patients who, on discharge, had either made no improvement or slight improvement only—29 per cent.

Accommodation. In September patients were admitted to the newly constructed 20-bedded pavilion, which increases our total accommodation from 70 to 90 beds. As a result of this the waiting-list for this Institution has been very considerably reduced, and patients are enabled to commence their treatment shortly after having been diagnosed by their Tuberculosis Officers. It was decided, whenever possible, to keep one vacant bed, which was to be used as an emergency bed for cases requiring urgent admission; considerable use has been made of this bed, particularly in cases of hæmorrhage.

X-Ray Department. X-Ray photographs have been taken during the year as follows :—

In-Patients	..	..	..	..	782
Out-Patients	..	..	..	..	543
Staff	..	..	..	..	31
					<hr/>
Total	..	..	..	..	1,356
					<hr/>

This shows a total increase of 251 as compared with the previous year.

The apparatus continues to work satisfactorily.

Treatment.

Artificial Pneumothorax Treatment. There has been a considerable increase in the number of patients undergoing this treatment, as is shown by the following table :—

	1936.		1935.
No. of patients who have received treatment	90	..	55
Total number of refills given ..	1,364	..	777
Number of cases induced at Harold Court ..	39	..	22
Number of out-patients	27	..	8

Phrenic Evulsion. This operation was performed on three cases by Dr. M. C. Wilkinson, Medical Superintendent of Black Notley Sanatorium.

Cases needing other forms of surgical treatment are transferred to the City of London Hospital, Victoria Park.

Gold Therapy. Twenty patients received this treatment, a total number of 161 injections being given.

Staff. Owing to the difficulty in obtaining nursing staff for the Sanatorium, it was decided to employ certain ex-patients, whose disease had become quiescent, as temporary male orderlies for general and nursing duties. There are at present three of these men on our staff and their work is proving

most satisfactory in all respects ; also we are enabled to give employment to patients whose original occupations are unsuitable for them to return to and who would otherwise be unemployed.

I should again like to thank Dr. Burton Wood for his help during the year.

(c) HIGH BEECH SANATORIUM. Dr. L. S. Fry, Medical Officer of the High Beech Sanatorium, has forwarded the following report for 1936 :—

I give below an analysis of the cases admitted during the year :—

Glands of Neck	..	..	..	39 cases.
Mesenteric Glands	..	..	..	5 „
Bones and Joints	..	..	..	8 „
“ Observation ”	..	..	..	31 „
—				
Total	..	..	..	83 „
—				

Total number of discharges, 84.

“ Observation ” and other cases in which the diagnosis seemed doubtful were submitted to the Mantoux test in series, with the following results :—

Positive	..	..	..	..	13
Negative	..	..	..	..	20
—					
Total	..	..	..	..	33
—					

All children admitted during the year were Schick tested and those giving a positive reaction inoculated with Alum Toxoid.

Experience generally seems to be showing that the so called “ one shot ” method cannot be relied upon to turn the Schick positive reactor negative in more than 50—60 per cent. of cases and still less probably to confer immunity against Diphtheria.

Moreover the various brands of Alum Toxoid on the market vary considerably in potency. Since September, therefore, Alum Toxoid has been administered in two doses (.1 c.c. followed in two weeks by .4 or .5 c.c.) with much improved results as will be seen from the following table :—

	No. of Cases.	Post-Schick Negative.	%	Post-Schick Positive.	%
1 dose (.5 or 1 c.c.) ..	31	16	52%	15	48%
2 doses (.1 and .4 c.c.) ..	16	12	75%	4	25%

Travelling Facilities for Patients.

An amount of £52 3s. 6d. was expended during the year in providing necessitous patients with free travelling vouchers upon admission or discharge from institutions, and special visits to " Out-Patient " Departments.

Extra Nourishment.

During 1936, extra nourishment in the form of milk was granted to 270 patients at a cost of £735 14s. 5d. These patients came within special categories laid down by the Ministry of Health as being the most suitable type of patient to receive such assistance under a County Tuberculosis Scheme. Patients not within these categories, and who require extra nourishment, are referred to Care Associations or to the Relieving Officer for Public Assistance.

Prevention of Spread of Infection.

No action was taken during the year under Section 62 of the Public Health Act, 1925, for the compulsory segregation of an infectious tuberculosis patient.

The number of shelters on loan to patients at their homes during 1936 was 81.

Contacts.

The view was expressed in the report for 1935 that efforts should be directed specially to adolescent and young adult contacts, among whom the disease finds its greatest number of victims. The chief source of infection is the adult pulmonary patient, and although the proportion of those contacts examined in Essex and elsewhere is much below what is desirable or what is clearly possible, it is pleasing that the 1935 figure, 0.5 adult contacts examined per new adult pulmonary case, has risen in 1936 to 0.75. Contact examination should mean contact supervision, and the responsibility of the Tuberculosis Officer does not finish with one investigation, however full, for that can exclude tuberculosis at the time of examination only. A liaison must be formed between the family and the dispensary which will bring back the contact on the slightest suspicion that all is not well. Periodic examination is to be aimed at, and in view of the reluctance to attend at all shown by young adult contacts, the geometrical increase in work predicted in some quarters is not likely to be a matter of immediate foreboding.

Dental Treatment.

The provision of dental treatment and dentures continues to prove of great value to many tuberculous patients. As far as possible patients who are in need of dental treatment and who have been recommended for institutional treatment, are urged to have some treatment carried out before admission. Often, however, this is impracticable, and quite a large number of patients receive dental treatment in sanatoria. In this connection the Senior Dental Surgeon, Mr. S. K. Donaldson, reports as follows :—

" During the year 328 patients were treated by the whole-time dental staff. Work in the sanatoria is extremely interesting and it is with no small measure of pride that a Dental Officer can see the improvement in a patient whose systematic treatment has been advanced by the ground being prepared due to dental treatment.

I have had much opportunity to see this, and Dr. Wilkinson is enthusiastic in his recognition of the relationship of dentistry to systemic disease.

It is also interesting to note the mental reaction of these patients to dental treatment. I find that coupled with the enforced idleness of rest periods they are very prone to magnify post operative pain or discomfort, with the result that the rate of work must be considerably slowed to minimise the risk of upset to these patients."

Care Associations.

Table XVIII gives a summary of work done by Care Associations during 1936, and tribute must again be paid to the valuable work these Associations carry out in conjunction with the County Tuberculosis Scheme. During the year a careful study was made of the work done by these Associations and was compared with work done by similar bodies elsewhere. It would appear that this voluntary side of the anti-tuberculosis Scheme is relatively well developed in Essex. The bulk of the help given to patients by these Associations is in the form of extra nourishment, but much other useful work is performed, particularly that of providing convalescent holidays for children who have been in contact with tuberculosis.

The County Council grants to these Care Associations during 1936 amounted to £1,390 as compared with £872 for 1935, excluding the grant not exceeding £20 allowed to each Association for printing, stationery and postage.

PART III.

MATERNITY AND CHILD WELFARE ACT, 1918.
NOTIFICATION OF BIRTHS ACTS, 1907 & 1915.

(1) COUNTY AREA. The County Council was responsible during the year 1936 for administering the above Acts in the undermentioned 31 Sanitary Districts.

The information in the following table is obtained from (a) the births actually notified to the County Health Department, (b) particulars of unnotified births furnished by the local Registrars of Births and Deaths (c) notifications of Puerperal Fever as given by the Registrar-General and (d) copy notifications of Ophthalmia Neonatorum received from Medical Officers of Health :—

TABLE XXI.

Sanitary Districts.	Estimated Popula- tion, 1936.	No. of Births notified by		No. of Births Unnoti- fied.	No. of Notifi- cations of	
		Mid- wives.	Doctors and Parents.		Puer- peral Fever.	Oph- thalmia Neona- torum.
Maldon B.	8,995	26	66	1	...	...
Saffron Walden R.	6,256	16	29	7	...	...
Benfleet U.	14,560	113	32	4	...	1
Billericay U.	32,527	324	163	—	2	1
Braintree & Bocking U.	14,220	76	124	12	2	...
Brentwood U.	26,410	119	105	3	...	1
Brightlingsea U.	4,192	...	36	11	...	...
Burnham-on-Crouch U.	3,508	41	7	..	1	...
Canvey Island U.	6,044	48	12	7	...	...
Chigwell U.	20,780	99	94	7	1	...
Chingford U.	32,850	156	161	46	2	1
Epping U.	5,778	74	40	3	...	...
Frinton & Walton U.	7,150	16	40	1	...	...
Halstead U.	5,826	33	34	4	...	...
Hornchurch U.	64,385	423	597	49	...	9
Rayleigh U.	7,265	45	18	6	...	...
Waltham Holy Cross U.	6,962	18	57	2	...	1
West Mersea U.	2,311	4	18	...	...	...
Witham U.	7,150	64	33	...	...	...
Wivenhoe U.	2,156	4	20	...	...	...
Braintree R.	15,710	100	70	3	1	...
Chelmsford R.	29,748	276	104	12	1	...
Dunmow R.	16,100	97	97	6	...	...
Epping R.	14,550	95	53	10	1	...
Halstead R.	15,720	74	88	2	...	...
Lexden & Winstree R.	19,870	111	92	4	3	...
Maldon R.	13,620	100	67	3	1	...
Ongar R.	12,480	119	84	..	...	...
Rochford R.	16,250	113	432	8	..	1
Saffron Walden R.	15,480	111	67	7	3	...
Tendring R.	22,290	276	98	6	...	...
Totals ...	471,203	3,171	2,938	224	18	15

As indicated in last year's report the Essex Review Order, 1935, under which the new Thurrock Urban District was created, came into operation on 1st April, 1936, and on that date the powers under the above Acts in the Purfleet Urban District were transferred from the County Council to the Thurrock Urban District Council.

(2) **MEDICAL STAFF.** Particulars in regard to the Medical Staff are given on page 9.

(3) **HEALTH VISITORS.** During the year 1936, three Health Visitors were appointed for the Canvey Island, Chingford and Hornchurch Districts, respectively, to perform the duties of Health Visitor, School and Tuberculosis Nurse.

Facilities were again granted to a member of the Staff, viz., the Midwife and Assistant Health Visitor in the Loughton area, Miss H. Threadkell, to train for the Health Visitor's Certificate, and she was therefore appointed as Probationer Health Visitor in the Hornchurch area in accordance with the County Scheme.

The increasing work of the Chief Health Nurse and her assistant, both for the County Council and the Essex County Nursing Association, made it imperative to appoint a second Assistant Chief Health Nurse, who commenced duty in September, 1936.

On 31st December, 1936, the Health Visiting Staff undertaking Child Welfare work on behalf of the County Council numbered as follows :—

Whole-time (also undertaking School and Tuberculosis duties)	44	} Equivalent whole-time H.V. for C.W. = 19½ (approx.)
Part-time	2	

N.B.—The above figures do not include the Chief Health Nurse and her two Assistants but include the Probationer Health Visitor.

The District Nurse-Midwives continued to assist the Health Visitors as far as possible.

(4) **ANTE-NATAL CLINICS, MATERNITY AND CHILD WELFARE CENTRES, WEIGHING CENTRES, TODDLERS CLINICS AND WOMEN'S WELFARE CENTRES.** At the end of the year 1936 there were 21 Ante-Natal Clinics, 103 Child Welfare Centres and 10 Weighing Centres in the County Child Welfare Area. No new Ante-Natal Clinics were established during the year. Child Welfare Centres were established at Great Sampford, Southminster, Hutton and Weighing Centres at Rawreth and Quendon.

Langdon Hills Child Welfare Centre which prior to 1st April, 1936, was in the Orsett Rural District was taken over by the County Council on that date when Langdon Hills became part of the Billericay Urban District.

In addition to the Toddlers Clinic established at the Combined Treatment Centre, Hornechreh, in 1933, the following have been established during the year 1936 :—Canvey Island, South Benfleet, Hadleigh, Burnham-on-Crouch, Braintree, Maldon, Stansted, Upminster, Hornechreh (Park Lane), South Chingford, Roehford and Wickford.

During the year Women's Welfare Centres were established at Braintree, Laindon, Brentwood, Colchester (to serve Lexden and Winstree), South Chingford, South Benfleet and Maldon, where post-natal patients in need of Birth Control advice and patients suffering from gynæcological conditions are seen.

On the 29th October, 1936, the Fourth Annual Conference of representatives from each of the Voluntary Committees of Child Welfare Centres was held. An invitation was also extended to Medical Officers of autonomous Child Welfare areas, County Council Health Visitors, representatives from Women's Institutes and members of Women's Co-operative Guilds. Mrs. C. Custerson, J.P., C.C., presided, and Miss Norah March, Secretary of the National Baby Week Council, gave an interesting address on Educational Work at Child Welfare Centres. A short discussion followed on various branches of the Maternity and Child Welfare services.

The services of the Domestic Science Teacher, Mrs. B. G. Richardson, were continued throughout the year, her course of lessons being given at the undermentioned Child Welfare Centres :—Harold Wood, Stansted, Halstead, Dunmow, Epping, Vange, Great Bardfield, Billericay, Wickford, Ingatestone, South Woodham, West Mersea, East Hanningfield, Stock, Broomfield, Hatfield Peverel, Great Yeldham, Great Wakering, Thaxted, Stebbing, Weeley and Kelvedon.

The course consists of a series of ten lessons at each Centre, giving useful information to mothers regarding the different classes of food necessary to build up, warm and protect the body and also giving general rules for the kitchen, &c.

I am indebted to Mrs. Richardson for the following observations concerning her attendance at the Centres during the year :—

During 1936 Demonstrations illustrated by simple dishes have been given at Child Welfare Centres.

The use of a portable oven heated by a Primus Stove (and therefore very inexpensive) has been most satisfactory and very interesting to the Mothers in Rural Areas.

The notes of lessons continue to be very popular and the extra notes on home made jams, marmalade, lemon curd, Christmas fare, &c., have been in great demand.

Simple competitions for the best dishes made at home by the mothers have stimulated interest in the work and the books of recipes given as prizes have given help and pleasure.

The short demonstrations at Health Exhibitions continued during the summer months; repeated requests for demonstrations on "Portable Dinners" and "Cottage Cookery" clearly show a keen interest in these important sections of the work.

As in previous years the splendid co-operation of the Health Visitors, District Nurses, Members of the Committee and the Caretakers, has added to the pleasure of the work and the value of the lessons.

Miss I. Campbell, the Demonstrator of the National Milk Publicity Council, continued to give demonstrations at Child Welfare Centres, showing the mothers the various methods of using and preparing milk in dietary. She has rendered excellent service in this direction.

(5) COMBINED TREATMENT CENTRES. Reference is made to Combined Treatment Centres on page 117 of this Report.

(6) **PROVISION OF MILK AND MEDICAMENTS.** The two schemes for (a) the provision of wet milk and (b) medicaments through local chemists outlined in previous reports, were continued.

With a view to co-ordinating the scales under which milk is supplied to expectant and nursing mothers and children under five years of age, and that under which milk is supplied to school children at less than cost price, the following scale was brought into operation on 1st July, 1936 :—

- (a) Where the family income after deducting rent, fares and other extraneous expenses and 5/- for each parent and each dependent child, does not exceed 15/- per week—

Milk, Medicaments, &c., to be supplied free.

- (b) Where the family income, after making the above deductions does not exceed 20/- per week—

Milk, Medicaments, &c., to be supplied at half-price.

On 1st April, 1937, Circular 1519 was issued by the Ministry of Health and consideration is being given as to further developments necessary in this Scheme. Full details will be given in the next Annual Report. See also page 114.

(7) **DENTAL TREATMENT AND DENTURES.** The scheme, as outlined in previous reports, was continued.

In October, 1936, the fee charged to mothers and children treated by the County Dentists was reduced from 2/6 to 1/6 per course of treatment, thereby making the charge identical with that in use for school children.

The scale of charges to be made by private dental practitioners under the scheme was also revised and the County Council decided to adopt the scale set out in the Dental Benefit Regulations, 1936.

I am indebted to Mr. S. K. Donaldson for the following observations :—

“ Although the whole-time Dental Staff of the County Council have not been able to give as much time to mothers and pre-school children as one could wish, the arrangement is already proving its worth.

One session per month is allowed for this work, which is growing each year, and already the time allowed is found to be hopelessly inadequate despite the fact that whenever possible, patients are often seen at the close of a school clinic in an attempt to keep abreast of the work.

It is hoped that with the proposed increase of the Dental Staff in 1937 and the consequent decrease in size of the districts to be served, more attention can be given to mothers and pre-school children.

The value of this work cannot be over-estimated and returns a very high dividend. When we remember that much is written in the Press of the desire on the part of the Government for national fitness and the forecast of schemes for securing this, our minds should automatically turn to the early protection of children's teeth, as one very important matter requiring attention.

This does not mean elementary and secondary school children alone, for no matter how thorough the treatment is in repair, it is important that our effort should commence with preventive dentistry, which means the protection of children from the very earliest time possible, in order to bring them into the world with reasonably calcified bones and teeth, inherited from parents whose general health has been given every chance by removal of dental defects.

It should be considered as one of the duties of the Dental Officer when given the opportunity, to advise on a diet which may ensure properly calcified teeth, in addition to treating all dental defects in the mothers themselves.

This care serves in a dual capacity by improving the general health of the mother, with a consequent improvement to her baby. Imagine then, a mother with a more healthy outlook in life and her appearance improved by the removal of unsightly, decayed teeth, and dentures fitted. It is reasonable to assume that she, from personal experience, will have gained confidence in what dental treatment can effect, and consequently she will be stimulated to seek dental protection for her children at the hands of the Dental Officer.

Already cases are being referred to the Dental Officer from Toddlers' Clinics for examination and possible treatment.

More advantage should be taken of these facilities since the early experience of children often determines their reaction to future treatment. It will be readily recognised that treatment at an early age can be carried out without discomfort and upset to the child. This saving of teeth will preserve the proper spacing of the arches, and in eliminating one predisposing cause of decay, tend to lessen the treatment necessary to the permanent dentition.

Several engagements were kept by the Dental Staff to speak at Health Exhibitions during the year, the children being addressed in the morning and the mothers in the afternoon sessions. These, and particularly the latter, are invaluable sources of propaganda, and bring the Dental Staff into contact with the parents, and gives an opportunity to render advice.

This opportunity to advertise the activities of the dental service is part of the much needed propaganda, which in conjunction with the good work by the staff, removes most of the silly prejudice due to lack of education in dental matters."

During the year under review a total of 864 patients were treated at a cost to the Council of £1,313 11s. 4d., of which £457 4s. 8d. was recovered from patients as contributions.

(8) HOME HELPS. Seventy-three applications were received during the year as follows :—Aldham (1), Belchamp Walter (1), Billericay (1), Blackmore (1), Bocking (1), Boreham (1), Burnham (1), Castle Hedingham (1), Dedham (1), Doddinghurst (2), Dunton (1), Great Baddow (2), Great Yeldham (1), Galleywood (1), Halstead (1), Hatfield Peverel (2), Hornchurch (17), Ingatestone (1), Kelvedon Common (1), Laindon (7), Lindsell (2), Little Saling (1), Maldon (3), Oakley (1), Pitsea (2),

Shalford (1), Sible Hedingham (3), Shenfield (1), Shelley (1), Silver End (1), Southminster (1), Springfield (1), Stock (1), Stondon Massey (1), Thaxted (1), Vange (4), White Colne (2), Witham (1).

Details of the revised Scheme for the Provision of Home Helps were given in the report for 1935, and this was brought into operation in the Hornchurch Area in September, 1936. Six Home Helps are employed and as shown above, up to the end of the year, seventeen applications were received from patients.

Dr. Annie Gardiner, the Medical Officer of one of the Hornchurch Centres, makes the following observations :—

“ Four women were first appointed, but by December, 1936, it was necessary to increase this number to 6.

The scheme has worked well in the Hornchurch area, and the difficulties which have arisen have been minor ones and have been dealt with locally. From my observations, it would appear that fuller advantage is taken of the Home Helps where there is a Combined Treatment Centre where frequent Maternity and Child Welfare Sessions are held and where the Maternity and Child Welfare work is carried out by the one Medical Officer.

There is a further factor in regard to Hornchurch which has added to the success of the scheme, namely, so many of the population have come from the North and from London, and have therefore no available relatives at hand.

In the less urban areas there must be close co-operation between the Health Visitor and the Midwife, and the latter must be encouraged to tell her patients of the Home Helps Scheme, as it is frequently found that by the time the woman comes to the Ante-Natal Clinic she has arranged with some neighbour to give part-time service.

Women who have actually had the Home Helps have been most appreciative of their services, and I feel sure that as the Scheme becomes better known more women will be required. So far we have been fortunate in securing the services of extremely suitable women.”

(9) TRAVELLING EXPENSES OF MOTHERS ATTENDING CHILD WELFARE AND WEIGHING CENTRES. At the end of the year 1936 forty-four Child Welfare and Weighing Centres were participating in the scheme, namely :—Bardfield, Bocking, Braintree, Brightlingsea, Burnham-on-Crouch, Cold Norton and Purleigh, Danbury, Debden and Wimbish, Dunmow, East Hanningfield, Eastons, Epping, Felsted, Fordham, Fyfield, Goldhanger, Harlow, High Easter, Great Horkesley, Laindon, Layer-de-la-Haye, Leaden Roding, Ongar, Parkeston, Rivenhall and Silver End, Rochford, Roydon, Great Sampford, Southminster, Stansted, Stebbing, Stock, Stondon Massey, Takeley, Terling, Great Tey, Thaxted, Tillingham, Tollesbury, Great Wakering, Little Waltham, Wethersfield, Woodham Ferrers and Great Yeldham.

(10) PUBLIC HEALTH (NOTIFICATION OF PUERPERAL FEVER AND PUERPERAL PYREXIA) REGULATIONS, 1926. During the past five years, copies of notifications made by medical practitioners were received from Medical Officers of Health in the Administrative County and the County Child Welfare Area as follows :—

	Administrative County.					C.C. Child Welfare Area.				
	1932.	1933.	1934.	1935.	1936.	1932.	1933.	1934.	1935.	1936.
Puerperal Fever ..	58	50	61	62	61	20	23	20	27	18
Puerperal Pyrexia ..	123	150	149	144	179	37	50	42	37	56

(See also page 111).

(i) *Obstetric Specialists.* The services referred to in the previous year's report were continued.

Mr. W. S. O'Loughlin, M.C.O.G., in addition to attending at the Ante-Natal Clinic, Oldechurch Hospital, Romford, was called in to twelve patients in various parts of the County.

(ii) *Institutional Treatment.* During the year 1936, twenty-six patients suffering from puerperal fever or puerperal pyrexia were admitted to Hospitals and Institutions under the Public Health Committee's arrangements at a cost of £150 16s. 6d., the amount recovered from patients being £52 12s. 1d.

(iii) *Puerperal Fever Units at St. John's Hospital, Chelmsford, and Oldechurch Hospital, Romford.* The valuable work carried out by these two special units, which was mentioned in the report for 1931, has been continued and full advantage of the facilities has been taken by the Public Health Committee, as well as by certain autonomous child welfare authorities in the County. Details of the work carried out have been received and the following is a brief summary thereof :—

Institution.	No. of patients admitted.	Duration of Stay.					Discharged.
		0—7	8—14	15—21	22—28	Over 28 days.	
Chelmsford ...	30	1	12	8	5	4	29
Romford	44	...	6	12	12	14	41

(iv) *Skilled Nursing.* The arrangements were continued with the Essex County Nursing Association for the provision of skilled nursing in the homes of patients when the circumstances render the removal of the patient to hospital difficult or impossible.

(v) *Bacteriological Examinations of (a) lochia, (b) blood.* Facilities for these examinations were available under the County Laboratory Scheme.

The arrangements mentioned in last year's report whereby Dr. F. E. Camps, Pathologist at the Chelmsford and Essex Voluntary Hospital, carried out special Hæmolysis tests, were continued. Many of these tests have, when requested, included a serological typing, which, as explained last year, has proved of great value in determining earlier diagnosis of puerperal sepsis from cervical swabs, control of midwives and in tracing the source of infection.

During November, 1936, four cases of puerperal pyrexia occurred in the Maternity Department of Billericay Public Assistance Hospital. Immediate measures were taken to investigate the cause, and prevent further spread of infection.

Thorough bacteriological examinations of the patients were made, and in addition, throat swabs were examined from all likely contacts.

Although the causative organism was discovered, there was no definite evidence to point to the originating source of the infection.

At the time of this occurrence the Maternity Department was closed, and has not since been re-opened. Certain suggestions were made for re-planning the whole Department and these are at present being put into effect.

(vi) *Puerperal Infections.* A real effort has been made to follow up cases of puerperal infection in a scientific manner whenever the circumstances of the case have made it possible.

The essential part of the scheme, which is based upon the Medical Research Council's and other workers' report upon *Streptococcus Pyogenes* infection in the puerperium, consists of obtaining at the earliest possible moment swabs from the cervix and throat of the patient and also throat swabs of the contacts.

The modern view is that a large proportion of cases of Puerperal Sepsis are due to infection with the *Streptococcus Pyogenes*. It is further held that the organism is conveyed to the genital tract from outside sources, per vaginam, being most probably a droplet infection from the upper respiratory tract, and so infection of the patient may occur either from herself or from one of her attendants, or even one of the members of her own household.

Through the facilities offered by Dr. Camps at the Chelmsford and Essex Hospital, it has been possible to carry out a rapid examination of a set of swabs, and usually within 24 hours a report has been made, stating that the patient either has or has not a *Streptococcus Pyogenes* infection of the Pathogenic Group A.

Where such infection is present, the remainder of the swabs are then examined, and serological typing is subsequently attempted on all of them.

By these means it has been possible, firstly, to ascertain the true nature of the infection, and so to arrange for earlier and more energetic treatment appropriate to the case, and secondly, it has often been possible to trace the source of the infection and so prevent the occurrence of further cases.

Dr. Camps has for some time past been carrying out work in connection with the serological typing of the *Streptococcus Pyogenes*, and it is of happy augury that he has had the valuable help and collaboration of Dr. Griffiths, of the Ministry of Health.

An interesting Judgement was given in the House of Lords, affecting the acceptance of patients to Maternity Hospitals, &c., where infectious disease had occurred. In this Judgement the owners of a particular maternity home were rendered liable for damages owing to the patient having contracted puerperal fever in the home.

Whilst the conclusions to be drawn from the case are fairly clear, yet some misgivings must surely arise in the minds of owners and administrators of such Homes in regard to ways and means of putting the legal interpretations of the case to reasonable and practical effect.

As a further complication, the principle involved, and arising from the case, has a direct bearing not only on the admission of patients into Maternity Homes, but also on the admission of patients into other hospitals and institutions.

The Ministry of Health has already been approached for guidance on the subject, and it is anticipated that some ruling will be given in due course.

In the meantime, it will be our practice, as in the past, to deal with puerperal infection arising in hospitals or institutions owned by the Council, according to the special circumstances connected with the case.

(11) PUBLIC HEALTH (OPHTHALMIA NEONATORUM) REGULATIONS, 1926. The arrangements made under these Regulations were fully set out in the Report for the year 1927. These Regulations were amended from 1st April, 1937, details of which will be given in the report for that year.

During the year ended 31st December, 1936, copies of 58 notifications of Ophthalmia Neonatorum made by medical practitioners to Medical Officers of Health in the Administrative County, were received.

Fifteen of the above notifications relate to patients living in the County Child Welfare Area, and the following particulars of these patients have been obtained :—

Treated		Vision		Vision		Total		Deaths.
At Home.	In Hospital.	Unimpaired.	L.	Impaired.	L.	Blindness.	L.	
6	..	9	..	15	..	15	..	—

One patient was admitted to Hospital during the year under the County Council's arrangement for the treatment of this disease, with satisfactory results.

(12) HOSPITAL TREATMENT FOR MATERNITY PATIENTS. The arrangements with certain hospitals for the admission of the following types of maternity patients were continued :—

(a) Complicated or difficult cases of confinement where hospital treatment is essential.

(b) Cases of confinement where, in the opinion of the Medical Attendant, the patient cannot with safety be confined in her own home.

During the year three hundred and forty patients were admitted under the above schemes at a cost of £2,439 3s. 8d., the amount recovered from patients being £955 17s. 9d.

(13) CONVALESCENT TREATMENT—MOTHERS AND CHILDREN. The arrangements in connection with the Mabel Greville Home, Walton-on-the-Naze, referred to in previous reports have been continued, and four children were admitted under the Child Welfare Scheme.

In September, 1936, the County Council made arrangements with the Association of Maternity and Child Welfare Centres for the reception of Nursing Mothers with their infants under the age of six months to the Convalescent Home, East Street, Mayfield, Sussex.

Convalescent treatment for mothers and babies continues to present a difficulty owing to the lack of suitable Homes which will accept both mothers and babies together, without restriction.

However, it is hoped that when the County Council's hospital scheme materialises (see page 67), there will be ample facilities for convalescent treatment of mothers and infants.

(14) TREATMENT OF MINOR AILMENTS—CHILDREN UNDER SCHOOL AGE. The scheme was continued and 69 children under school age received operative treatment during the year.

(15) TREATMENT OF ORTHOPAEDIC PATIENTS. Full details of the scheme for the treatment of orthopaedic patients adopted by the Public Health and Education Committees were given in the Annual Report for 1927.

As far as children of school age are concerned, these are dealt with in the School Medical Officer's Annual Report, so that the following information relates to children under school age in the County Council's Child Welfare Area :—

(a) *Number of Cases on Books.* At the end of 1936, there were approximately 345 Child Welfare patients requiring treatment, supervision or observation.

(b) *Ascertainment and Re-examination Clinics.* During 1936 Mr. Whitechurch Howell attended 69 clinic sessions for the County Council and carried out 368 examinations of County patients under school age.

(c) *Hospital Treatment.* The following figures show the position regarding Institutional treatment on 1st January, 1936, as compared with that on 1st January, 1937 :—

	Child Welfare Patients recommended and accepted by Committee for Hospital treatment.			Being investigated.	No. in Hospital under the County Scheme.	
1st January, 1936	..	6	..	3	..	4
1st January, 1937	..	11	..	2	..	11

During the year 15 patients completed hospital treatment and 22 patients were admitted into hospital.

The Orthopaedic Scheme continues to provide adequate treatment and after-care.

On 1st December, 1936, Brookfield Orthopaedic Hospital was taken over by the County Council. There are 30 beds, all of which have been kept occupied. In addition to County Council cases, patients are sent by Autonomous Child Welfare and Education Authorities.

In May, 1936, it was found necessary to commence an after-treatment centre with monthly sessions at Rochford and the number of attendances prove that this Centre is fully justified. It is probable that similar Centres will be commenced at Great Wakering and Burnham-on-Crouch in the near future.

(d) *Orthopædic After-Treatment Clinics.* The Orthopædic After-Treatment Clinics were continued during the year and 1,156 attendances of children under school age were made.

NURSING HOMES REGISTRATION ACT, 1927.

A detailed report was given in the 1928 Report of the provisions of the Act and the procedure adopted by the County Council. Regulations subsequently adopted have been referred to in previous reports.

The number of Registered Homes at the end of the year was as follows :—

(a) Maternity Homes only	..	..	..	20
(b) Maternity and Nursing Homes	..	..	..	24
(c) Nursing Homes (including Convalescent Homes)	..	..	..	12

The routine inspections of the Nursing Homes have been carried out at regular intervals. An opportunity has also been taken at these visits of inspecting those midwives residing in Nursing Homes who have notified their intention to practise.

In general, the Nursing Homes under the County Council's jurisdiction maintain a good standard of efficiency. The keepers of Nursing Homes have always displayed great willingness to co-operate in every way possible when suggestions have from time to time been found necessary.

During the year one application for registration of a Nursing Home was refused on the grounds that the accommodation and staffing arrangements were inadequate.

In the case of one Home which receives a poor class of aged and infirm patients, an adverse report was made in December, 1936. This was followed by a cautionary reprimand and conditions have since returned to a satisfactory standard.

On the 30th September, 1936, the Ministry of Health issued Circular 1574 with regard to the ascertaining of the existence of Nursing Homes which have not been registered under the Act, and as a result instructions were sent to the County Council's Medical and Nursing Staffs and Certified Midwives, asking them to report any premises used as a Nursing Home which were not already registered.

In addition, all medical practitioners and local Medical Officers of Health were asked to co-operate and half-yearly notices calling attention to the provisions of the Act are being inserted in the local Press.

CHILDREN AND YOUNG PERSONS ACTS, 1908-1932.

Infant Life Protection.

All the Health Visitors in the County Child Welfare Area are appointed Infant Life Protection Visitors and make visits of inspection at intervals of at least once a quarter to each foster-mother and child registered.

The larger foster homes have also been given additional supervision through periodical routine visits of inspection by the First Assistant County Medical Officer.

Arrangements were also made early in the year whereby Boarding Schools receiving children under the age of 9 years were inspected and in certain instances fire precautionary measures have been recommended by the County Architect.

At the end of the year there were 575 registered foster-children in the care of 363 foster-mothers.

It was unnecessary to obtain any Orders during the year for the removal of children from foster-parents under Section 67 of the Act of 1932.

Arrangements are being made with the Clerk of the County Council for half-yearly notices to be inserted in the Press, pointing out the provisions of the Children and Young Persons Acts, 1908-1932, relating to Infant Life Protection.

MIDWIVES ACTS, 1902-1936.

(a) GENERAL. (i) During the year the Dagenham Urban District Council applied for transfer to them from the County Council of the powers under the Midwives Acts in accordance with the provisions of Section 62 of the Local Government Act, 1929. Subsequently the Ministry of Health issued an Order, dated 30th March, 1937, transferring the powers to the Dagenham Urban District Council as and from the 1st April, 1937.

(ii) The Midwives Act, 1936, came into operation on the 31st July, 1936, and required Local Supervising Authorities to take steps to formulate their proposals for establishing a service of salaried midwives and submit these proposals to the Minister of Health not later than the 30th January, 1937, with a view to their being brought into operation on or before the 30th July, 1937.

To this end, in the last two or three months of 1936, the needs and conditions of the area for which the County Council is the Local Supervising Authority were carefully reviewed and conferences were held as required by the Act with :—

(a) *Welfare Councils*, i.e., Councils of County Districts not being Local Supervising Authorities which have established a Maternity and Child Welfare Committee under the Maternity and Child Welfare Act, 1918.

(b) *Voluntary Organisations*, i.e., Essex County Nursing Association, Salvation Army, &c.

(c) Local Organisations of Registered Medical Practitioners and Local Organisations of Midwives.

As a result, a scheme was approved by the County Council on the 2nd March, 1937, embodying the following proposals :—

(a) The County Council will appoint 22 Certified Midwives as whole-time servants of the Council, 16 of whom to be stationed in the following

districts and the remaining 6 to undertake duty as required. In addition, the County Council may also appoint two Certified Midwives for extern service in connection with the Oldechurch Hospital, Romford :—

Billericay Urban District	..	..	2
Braintree & Bocking Urban District	..	..	1
Chigwell Urban District	..	..	3
Chingford Urban District	..	..	1
Hornchurch Urban District	..	..	7
*Waltham Holy Cross Urban District	..	..	1
Chelmsford Rural District	..	..	1

*This has since been amended. Two District Nurse-Midwives will be employed instead.

(b) The salaries and allowances will be paid in accordance with the following :—

Commencing salary £170 to £200 per annum, according to experience, rising by annual increments of £5 to a maximum of £220 per annum.

In the case of those State Certified Midwives who have obtained the three years' general training certificate in a Training School recognised by the General Nursing Council, from £20 to £30 per annum as settled by the appointing Authority, shall be added to the salary.

Uniform allowance—£10 per annum. Laundry allowance—£6 10s. 0d. per annum.

Bicycle, or in special circumstances, motor car allowances according to district.

Holiday—4 weeks.

Not exceeding £3 for purchase of equipment and not exceeding £3 per annum for maintenance of equipment.

Consideration will be given in suitable cases to the necessity of providing a telephone for the use of the midwife.

Where a Midwife uses a room exclusively for professional purposes, a suitable annual sum for the use thereof, not exceeding 5s. per week, may be granted by the appointing Council.

(c) The fees payable for the attendance of the above-mentioned Midwives to be in accordance with such scale as the County Council may for the time being put into operation.

(d) By arrangement with the Essex County Nursing Association, 182 Certified Midwives are to be employed by the Association in the areas for which the County Council is the Local Supervising Authority, the salaries to be not less than the following and the Association is authorised to charge fees as indicated below :—

Salaries and Allowances.

		Salaries.	
District Nurse-Midwives under .. contract	£110 ..	1st year	
	£115 ..	2nd year	
	£120 ..	3rd year	
Senior District Nurse-Midwives ..	£140—£200. (The provision of a furnished cottage to be reckoned as equivalent to £26 per annum salary and an unfurnished one at £20 per annum, as an average basis).		
General Trained District Nurse ..	£160—£220		
Midwives			

All District Nurse-Midwives to be supplied with uniform, bicycle or, in special circumstances, motor car allowances and all necessary bags and equipment and 2/- per week laundry expenses.

Fees.

		Members.	Non-Members.
Midwifery	..	Not less than £1 1s.	.. Not less than £2 2s.
Maternity	..	Not less than 15s.	.. Not less than £1 10s.
Nursing			

Any necessitous case to be specially considered upon its merits.

(e) *Welfare Councils.* It was also agreed that the Welfare Councils should employ certified Midwives as whole-time servants as indicated below, the scale of salaries to be not less than those indicated under (b) above, the County Council to pay to each of the Welfare Councils an amount equal to the amount which the County Council would have to pay under that scale :—

Welfare Council.	No. of Midwives.
Chelmsford Borough	5
Dagenham Urban District*	12
Harwich Borough	1
Romford Urban District	6
Thurrock Urban District	10
Wanstead & Woodford Urban District	3

*Became Local Supervising Authority on 1st April, 1937.

(b) *PRACTISING MIDWIVES.* During the year under review 360 midwives notified their intention to practise in the Administrative County, excluding the Barking, Colchester, Ilford, Leyton and Walthamstow Midwives. Of these 324 were actually in practice at the end of the year 1936. These midwives are classified as follows :—

Total No. of Midwives in Practice at end of year.	Trained.		L.O.S. Certificated.		<i>Bona fide.</i>	
	Dep.	Indep.	Dep.	Indep.		
324 ..	185 ..	133 ..	1 ..	4 ..	..	1

The total number of live births and still births which occurred during the year 1936 in the Administrative County, excluding Barking, Colchester, Ilford, Leyton and Walthamstow Boroughs, was 12,670, and of these, 5,193 (40.9 per cent.) were attended by midwives in the capacity of a midwife, and 3,476 (27.4 per cent.) as maternity nurses under the supervision of medical practitioners.

Each midwife was asked to state the number of confinement cases which she attended as a midwife during the year 1936, and it was found that 161 trained and 3 *bona fide* midwives attended 10 or less cases each, 83 trained and 2 *bona fide* attended 11—20 cases each, 46 trained and 1 *bona fide* attended 21—40 cases each, 15 trained attended 41—60 cases each, 11 trained attended 61—100 cases each, and 2 trained attended over 100 cases each.

In September, 1936, Miss G. H. Quill was appointed as Midwife and Assistant Health Visitor in the Loughton Area in place of Miss H. Threadkell, who was transferred to the Hornchurch Area as a Probationer Health Visitor.

The conduct and mode of practice of one practising midwife was reported to the Central Midwives Board during the year. The Board decided that certain of the charges had been proved to their satisfaction, and thereupon instructed the Secretary to remove her name from the Roll of Midwives.

(c) HANDYWOMEN. During the year 1936 a report was received regarding a case of confinement attended by a woman who was not a certified midwife and who, it was alleged, had acted as a Midwife without being under the direct and personal supervision of a Registered Medical Practitioner. The necessary caution was sent.

(d) NOTIFICATIONS. The following list shows the number of notifications received from certified midwives in accordance with the rules of the Central Midwives Board during the year as compared with the previous four years :—

	1932.	1933.	1934.	1935.	1936.
Records of Medical Aid	.. 2036 ..	2025 ..	2089 ..	1898 ..	1954
Records of Still-Births	.. 96 ..	101 ..	102 ..	85 ..	82
Deaths of Mothers ..	.. 5 ..	2 ..	1 ..	2 ..	4
Deaths of Infants ..	.. 66 ..	76 ..	73 ..	55 ..	65
Artificial Feeding ..	.. 54 ..	61 ..	77 ..	66 ..	83
Liability to be a source of Infection	.. *251 ..	*209 ..	*277 ..	*265 ..	*238
Laying-out for Burial	.. 261 ..	293 ..	260 ..	78 ..	†285
Ophthalmia Neonatorum or Discharging Eyes	.. 237 ..	243 ..	199 ..	102 ..	‡120

*These figures include all cases of High Temperature.

†The increase in the number as compared with the previous year is owing to the fact that from October, 1935, the rule of the Central Midwives Board affecting Laying Out for Burial was revised so as to enable a Midwife when acting in the capacity of either Midwife or Nurse to lay out a dead body.

‡Includes 16 cases notified as Ophthalmia Neonatorum.

Puerperal Fever, Puerperal Pyrexia and Ophthalmia Neonatorum.

Special investigations were made into all cases of high temperature of mother and discharging eyes of infant in a midwife's practice. The results of these investigations showed that during 1936 in one case of high temperature the rules of the Central Midwives Board were not properly carried out. A warning letter was sent to the midwife concerned.

Pemphigus Neonatorum.

All suspected cases of Pemphigus Neonatorum occurring in a midwife's practice are investigated to ensure that every possible precaution is taken to prevent a spread of the disease.

Enquiries were made into 18 suspected or actual cases occurring in Billericay (4), Braintree R. (1), Brentwood (1), Chingford (1), Clacton (1), Dagenham (4), Halstead R. (1), and Thurrock (5).

One Midwife received a written caution for an infringement of the rules.

Inspection Visits.

Thirteen hundred and twenty-nine routine visits were made to midwives during the year and of these 385 were undertaken by Assistant County Medical Officers and 944 by the Chief Health Nurse and her Assistants and the Relief Health Visitor.

Written cautions were sent to 4 midwives for minor infringements of the rules other than those referred to in the paragraphs relating to Puerperal Fever, Ophthalmia Neonatorum and Pemphigus Neonatorum above.

Doctors' Fees.

In accordance with Section 14 of the Midwives Act, 1918, during the year ended 31st December, 1936, the County Council paid the sum of £2,130 15s. 1d. as fees to medical practitioners and recovered from patients during the year the sum of £648 16s. 4d.

The following comparative table is of interest, showing (a) the number of medical aid notices received from midwives during the past five years, and (b) the corresponding number of doctors' claims made against the County Council in respect of such notices :—

Year.	No. of Medical Aid Notices received from Midwives.		Percentage of Confinements attended by Midwives in which medical aid was sought.	No. of Medical Aid Notices for which Doctors' claims have been received.		Total amounts of claims.			Amounts recovered from patients.		
						£	s.	d.	£	s.	d.
1932 ..	2036	..	34.0	..	1564	..	2,285	11 9	..	593	15 9
1933 ..	2025	..	34.9	..	1575	..	2,527	12 6	..	625	9 1
1934 ..	2089	..	36.4	..	1628	..	2,174	15 6	..	800	13 6
1935 ..	1898	..	38.9	..	1514	..	2,147	15 6	..	766	1 6
1936 ..	1954	..	37.6	..	1510	..	2,130	15 1	..	648	16 4

Lectures.

The Essex Midwives Association arranged a special course of lectures in Chelmsford which was held in May and June.

Dr. Sidney Owen gave lectures entitled "Modern Methods in the Management of the New-Born Infant, Normal and Abnormal," and "The Health of the Toddler and Child of School Age."

The lectures were greatly appreciated by the 72 midwives who attended the Course. The County Council assisted the Association by a grant towards the lecturer's fees, travelling expenses, &c.

Essex County Nursing Association.

(a) GENERAL. For the year 1936 the sum of £8,856 15s. 5d. was paid by the County Council to the County Nursing Association in accordance with the agreement.

(b) DISTRICT NURSING ASSOCIATIONS. At the end of 1936 the number of District Nursing Associations in the Administrative County which were affiliated to the County Nursing Association and which employed 185 Nurses, was as follows :—

No. of affiliated D.N. Associations.	No. undertaking Midwifery and District Nursing.	No. performing Maternity and District Nursing duties only.
155	.. 150	.. 5 (2 of which undertake general nursing only).

District Nurses belonging to affiliated Associations during the year 1936 made the following visits :—Midwifery 45,160, Maternity 33,054, District General 236,291, District Tuberculosis 2,220, Health Visiting—Pre-natal 26,710, Post-natal 38,313, and Home Visits (school children) 8,682.

Of the 155 affiliated Associations, 149 participate in the County Council's Combined Nursing Scheme.

(d) PARISHES SERVED—

Number in the County (excluding extra-Metropolitan area)	..	378
Number served by affiliated District Nursing Associations	..	353

On pages 107-109 reference is made to the effect of the new Midwives Act, 1936, on the arrangements between the County Council and the Essex County Nursing Association.

GENERAL.

(a) Sulphonamide Group of Drugs.

Within the past two years several drugs under this heading have been marketed by well-known firms. These drugs have given hopeful results in the treatment of blood stream infections, and notably in the case of infections due to *Streptococcus Pyogenes*.

These special properties have been utilised in the treatment of septicæmia, and in particular puerperal septicæmia, where some very dramatic results have been reported.

Preparations of these sulphonamide drugs have, during the past year, been employed in the puerperal sepsis unit at St. John's Hospital, Chelmsford. The results have been most promising, and it can be said that in the majority of cases so far treated with these drugs the course of the illness has been curtailed and mitigated.

These drugs have also been used in the case of Nurses suffering from streptococcal throat infections.

In view of past tendencies to make premature and exaggerated claims for such new discoveries, the uses to which these drugs have been put have been purposely limited to such cases which are believed to benefit from them. Hence when more detailed results are available we shall be better able to assess their true value.

(b) Post-Graduate Course—Independent Midwives.

Under the County Council Scheme for certain independent practising midwives to undergo a post-graduate course in Midwifery for a period of two months at the York Road Lying-In Hospital, Lambeth, an application was received from one midwife during the year and the necessary arrangements made for her to attend the Course. In addition, the County Council assisted another midwife who had arranged to take a month's Course at this Hospital.

(c) Nursery Schools.

No Nursery Schools have as yet been established by the County Education Committee, though it is interesting to note that they have made provision in their estimates for the probable establishment of two Nursery Schools, one at Dagenham and the other at Tilbury, within the next three years. It should be mentioned, however, that these are Autonomous Child Welfare areas.

There is no doubt that the Nursery School has a most important and useful function to perform in the care and supervision of the Toddler.

Events show that there is a definite and growing need for the Nursery School in Essex, especially in the populous and socially depressed areas such as Laindon and similar districts.

It is to be hoped, therefore, that within the next few years we may see the materialisation of the Nursery School in Essex, and if established in a suitable district it should with certainty prove to be an unqualified success.

(d) Report of First Assistant C.M.O. (Dr. J. L. Miller Wood).

The First Assistant C.M.O. (Dr. J. L. Miller Wood), has furnished the following report in connection with his duties during 1936 :—

TODDLERS. In May, 1936, the Ministry of Health issued Circular 1550, entitled "Children under School Age." This pointed out that many children under 5 years of age are still not attending any Centres, and recommended that further endeavours should be made for improving the supervision of Children under School Age. The circular emphasised that an essential means to this end must be an efficient scheme of systematic periodical health visiting.

The Essex County Council had already adopted several of the suggestions put forward, amongst which was the establishment of separate Toddlers' Clinics. (See page 97).

To permit more supervision to be given to toddlers, additional Health Visitors were appointed during the year.

The following further recommendations were made :—

(1) Further Toddlers' Clinics to be established as and where the need arises.

(2) Provision to be made in the estimates for 1937-38 for :—

(a) An additional Medical Officer for Maternity and Child Welfare.

(b) Two additional Health Visitors.

WOMEN'S WELFARE CLINICS. Reference was made in last year's report to the establishment of a Women's Welfare Clinic at Hornechurch in January, 1935. The popularity which this Clinic has enjoyed, encouraged the establishment of similar Clinics in other parts of the County. (See page 97).

At these Clinics advice on medical grounds is given on contraceptive methods. Women are also seen for post-natal and gynaecological conditions.

This principle of providing in an unpretentious and unobtrusive fashion practical facilities in the controversial subject of " Birth Control " has proved an eminent success, and the Women's Welfare Clinic now takes its place as a firmly established concomitant of the Maternity and Child Welfare Scheme.

PROVISION OF MILK SCHEME. There have in many areas been considerable increases in the amounts of wet milk supplied to expectant and nursing mothers, infants up to 3 years, and on special recommendation, children up to 5 years of age. There have been a number of factors present to account for this, and it is not possible to go into them at any great length here.

There is no doubt, however, that mothers are becoming more aware of the facilities available, as is shown by the large increases of attendances at many Centres. Coupled with these facts there are certain areas in the County where very depressed social and economic conditions still exist.

Moreover, it will be appreciated that the individual Medical Officer recommending the milk, constitutes a personal factor which must also be taken into consideration. In accordance with the Ministry of Health's requirements, milk can only be supplied on medical grounds, though there is evidence forthcoming that many Medical Officers are now giving the widest interpretations of this.

At the time of going to Press, a further Circular from the Ministry of Health, dealing with this subject, is receiving consideration. As a result of this it would appear that some further extensions to our present scheme for providing milk will shortly be made. (See page 99).

(e) Report of Chief Health Nurse.

The Chief Health Nurse (Miss D. M. Landon) has furnished the following report in connection with her duties during 1936 :—

“HEALTH VISITING SERVICE. Excellent health education continues to be done by most of our Health Visitors in the County.

Among recent developments I should like to mention the Braintree, Hornchurch and Maldon Clinics, where the mothers have enthusiastically taken up physical exercises under the instructions of Health Visitors, the latter having given much of their spare time to these classes.

Other Health Visitors have persuaded their Welfare Centres to enter for the Mothercraft Competitions with marked success.

The mothers of the future are not being left out, for in the north of the County, thanks to the keen co-operation of the teachers, really excellent practical Mothercraft teaching is being given to senior girls in the schools.

INTERNATIONAL MIDWIFERY CONGRESS. Owing to the generosity of the County Council, Miss Davieson and I paid a most interesting and instructive visit to the International Midwifery Congress in Berlin.

Over 1,200 Midwives of 25 nationalities were present, and to hear the problems and organisation of Midwifery discussed from so many points of view was a very inspiring experience. The principal subjects discussed were :—

- (1) Whether confinements are safer at home or in hospital.
- (2) Pre-natal and post-natal care.
- (3) The obstetrical scope of the Midwife in different countries.

This varies enormously. In some cases they are allowed to have very little responsibility, and in others such as Sweden, the Midwife may do minor obstetrical operations which in England would only be undertaken by the General Practitioner, and if she calls in a Doctor he would only be in the capacity of a specialist.

- (4) The facilities in training Midwives.
- (5) The position of the unmarried mother.
- (6) The promotion and importance of breast feeding.
- (7) The falling birth rate.

Most countries appear to be seriously disturbed by this factor, and are making strenuous efforts to counteract it, but only in Germany are they meeting with marked success, there the birth rate having risen from 14.7 per thousand in 1933, to 18.9 in 1935.

Miss Pye, President of the English Midwives Institute, made a short but impressive speech and was warmly applauded when she said that fear and the uncertainty of existing conditions in the world was one of the main causes of a falling birth rate.

The following resolutions were passed :—

- (1) The International Congress of Midwives asks all Governments to work together with Midwives' Associations for more effective protection of motherhood and infancy ; for all measures of social improvement affecting health ; for the education of mothers and through them the preservation of the family.
- (2) The Congress reaffirms its demands that a qualified midwife should be engaged for every confinement, whether a doctor is present or not.
- (3) The Congress asks that there shall be a midwife on every Committee and organisation dealing with Maternity and Child Welfare.
- (4) The Congress believes that the fear and uncertainty which exist in many countries today are partly responsible for some of the evils which affect mothers present and future, and that the lowered birth rate may be in part due to this cause also. It therefore urges that those who have the welfare of mothers and children at heart should work for world peace through which alone can fear and anxiety be removed.

The Government entertained all the foreign representatives to a Dinner at which Herr. Dr. Frick, the Minister of the Interior, presided.

The City of Berlin also entertained us to a reception and Frau Scholtz-Klink, the Leader of the Women's Movement invited us to an " At Home."

Our German colleagues gave us a very warm welcome, doing all they could to make us feel happy and at home, and Miss Davieson and I would once again like to express our gratitude for having had such a particularly interesting experience.

ESSEX COUNTY NURSING ASSOCIATION. The Association has sustained a great loss in the resignations of the Matron, Miss Rose Clarke and Miss Llewellyn, General Training Sister, who have both left after many years of valuable and devoted service.

During the year no district has disaffiliated or disbanded, and four hitherto unnursed villages have been included in the existing District Nursing Association.

Five Associations have purchased cars and, owing to increased work. Canvey Island and Hornechurch have appointed additional Nurses.

With few exceptions, the Nurses' work on District continues to be very satisfactory although the new Midwives Act is having an unsettling effect on some of them, as a good many feel that they would like to apply for Council posts, although probably when the cost of living in towns is taken into consideration they would not benefit very much, even if the salary is larger.

The administrative work for the Essex County Council and the Essex County Nursing Association has increased so much, that of late years it has

been impossible for Miss Davieson or myself to see enough of the practical work of the District Nurses and Midwives and give them all the help and supervision they need.

I am very grateful for the appointment of a second Assistant, Miss M. M. Evans, who with her extensive midwifery and nursing experience, has already proved a great help in maintaining a higher standard of work.

(f) Miscellaneous.

The scheme was continued whereby a midwife practising in the County Child Welfare Area is allowed compensation of 10s. 6d. in respect of each patient referred to an Ante-Natal Clinic or a Medical Practitioner where the patient is admitted to hospital as a result. Eight claims were paid during the year 1936.

In the report for the year 1933 details of the scheme were given under which the County Council pay a fee of £1 1s. 0d. for the services of an Anaesthetist called in by a medical practitioner engaged for a confinement. Three claims were paid in 1936.

COMBINED MEDICAL SERVICE.

The Combined Medical Service Scheme, outlined in detail in previous reports, was continued during the year with the following alterations :—

(a) *Thurrock Urban District.* The newly created Urban District of Thurrock appointed Dr. W. T. G. Boul, who was the Combined Medical Officer for the Grays, Purfleet and Tilbury Urban and Orsett Rural Districts, as their Medical Officer of Health for the new District as and from 1st April, 1936.

Arrangements were made with the County Council for the continuance of Dr. Boul's services as Assistant County Medical Officer in the area with a slight adjustment in regard to salary, the County Council's contribution amounting to 9 per cent. of the total.

(b) *Brentwood Urban District.* The extension of the Brentwood Urban District under Section 46 of the Local Government Act, 1929, caused the Local Council to require an extension of the services of the Medical Officer of Health, Dr. B. F. Beatson, and consequently from the 1st January, 1937, arrangements with the County Council were revised, the proportion of the time devoted to duties of Assistant County Medical Officer being reduced from 50 per cent. to 25 per cent., leaving 75 per cent. for duties as Medical Officer of Health.

COMBINED TREATMENT CENTRES.

It was not found possible to complete any new Combined Treatment Centres during the year under review, but at the time of writing a new Centre has been opened at Epping and others will be completed during the year 1937.

PART IV.

PUBLIC ASSISTANCE.

General.

Considerable progress has been made during the year in carrying out the precepts of the Local Government Act, 1929, in all branches of Public Assistance Medical work.

Better Institutional accommodation and improved medical services continue to play a part in removing any remains of the stigma attached to the older infirmaries and the benefits foreshadowed by a centralised control now become apparent.

Close co-operation has been maintained between the Public Health Department, District Medical Officers and Approved Medical Practitioners, all of whom have been visited in the last twelve months by members of the central Medical Staff. Meetings and discussions on the "Free Choice of Doctor Scheme" and the domiciliary treatment of the sick poor have been of mutual benefit to both patient and doctor.

Officers of the Ministry of Health recently carried out an investigation into the diets of Institutions and Children's Homes in the Administrative County. The results of this investigation proved that the standard dietary adopted by the County Council is quite satisfactory.

Attention is drawn to the report, on page 121, on the results of the first examination in connection with the "Essex Scheme" for the training of assistant nurses.

Provision for the Sick in Public Assistance Institutions.

Table XXII, on page 120a shows the number of sick beds available on 31st December, 1936, in the ten County Public Assistance Institutions, together with the number of patients admitted and discharged. In view of the appropriation of Oldchurch Hospital, Romford, from 1st October, 1935, it is no longer included in this section of the report, but reference is made to it in the Hospital Section, see page 61.

Dental Treatment.

Public Assistance patients are treated by private Dental Practitioners, and also by whole-time members of the County Dental Staff, by arrangement with the Education Committee.

It has not yet been possible to arrange regular visits to Public Assistance Institutions by the whole-time staff, and these have had to be carried out during school holidays and Saturday mornings. Approximately 356 Public Assistance patients were treated by the County Dental Surgeons during the year, and it is hoped that with the additions to the staff which are to be made during the year 1937, further developments in this service will be possible.

A good many Public Assistance patients are, of course, persons of mature years, and care is taken to see that before dental treatment is carried out, involving the provision of dentures, the patient is likely to derive benefit therefrom and persevere with the dentures.

In the Children's Homes, the foster parents welcome the attention of the Dentists to the children as a means of assisting in keeping the children healthy.

Major Improvements carried out at Institutions during the year.

BILLERICAY. During the year the Committee considered a report on proposed extensions which would provide 25 additional female beds and include eight for maternity patients, and in planning for this extension foreshadowed a further extension to 150 beds. This was agreed to by the County Council, but it has not been possible to include this in the building programme for the next three years.

BRAINTREE. The new female Ward of 12 beds is nearing completion.

CHELMSFORD. The conversion of the Receiving Ward Block into a Hospital Annexe has been completed. This provides additional accommodation for 24 male patients.

As a result of a report on the accommodation at this Institution in October, 1936, the Committee gave instructions for plans to be prepared to accommodate an additional 100 beds. Unfortunately, however, it was not possible to include this in the building programme for the next three years.

Medical Staff—Public Assistance Institutions.

There were no changes in the Medical Staff of the various Public Assistance Institutions during the year. A list of the Staff will be found in Table XXII on page 120a.

Arrangements are being made to employ from 1st April, 1937, the services of Dr. F. E. Camps, of Chelmsford, as Consulting Physician and Pathologist at St. John's Hospital, Chelmsford, and at other Public Assistance Institutions as and when required.

Children's Homes.

Below are appended details of the Children's Homes in the Administrative County :—

Area.	Address of Home.	Beds available 31st December, 1936.		Beds occupied 31st December, 1936.	
		Boys.	Girls.	Boys.	Girls.
Colchester	.. The Institution,	27	.. 24	.. 14	.. 23
	Villa Road, Stanway				
	" The Chestnuts,"	28	.. 26	.. 15	.. 10
	" The Firs," " The Limes," " The Oaks," Tendring, near Weeley				
Braintree	.. " Friars," Bradford Street, Bocking, Braintree	16	.. 15	.. 11	.. 15
Saffron Walden	.. New Street, Dunmow	8	.. 12	.. 8	.. 12

Area.	Address of Home.	Beds available 31st December, 1936.		Beds occupied 31st December, 1936.	
		Boy?.	Girls.	Boys.	Girls.
Epping	.. Coopersale Common, Epping	27	.. 18	.. 27	.. 18
South-Eastern	.. 61-63, Whitehall Road, Little Thur- rock, Grays	—	.. 13	.. —	.. 13
Southern	.. Scattered Homes. Headquarters :— Harold Wood Hall, Harold Park, Rom- ford	102	.. 66	.. 85	.. 57
Chelmsford	.. "The Gables," High Street, Maldon	26	.. —	.. 26	.. —
	"Foxcroft," High Street, Billericay	—	.. 25	.. —	.. 24
	"Greenbourne," Writtle	32	.. —	.. 31	.. —

The Children's Home at Beehive Lane, Chelmsford, was found to be surplus to requirements and was closed down in January, 1936.

Children's Summer Camps.

Three hundred and ninety-five children from the Public Assistance Homes and the Romford Homes attended the holiday camp at Tendring. The children benefited considerably and particularly enjoyed the two organised sports days at which prizes were awarded. Thanks are due to the workers who helped towards making the camps such a success.

Maternity.

The maternity work undertaken at the ten County Public Assistance Institutions during the year again shows an increase as follows :—

	1935.	1936.
Total number of beds available for maternity cases	.. 37	.. 37
Total number of maternity cases confined therein	.. 302	.. 370

The specialized units at Oldchurch Hospital and St. John's Hospital, Chelmsford, continue to deal with many of the cases of puerperal fever and puerperal pyrexia in the County.

Examination of Bacteriological Specimens.

The Public Assistance Committee's arrangement with Dr. J. F. Beale, Bacteriologist for Essex, for the examination of Bacteriological specimens from Institutions was continued. Six hundred and ninety-six specimens were submitted during the year 1936.

TABLE XXIII.

BIRTHS, DEATHS, ANNUAL RATES, &c., 1936.

Sanitary District	Census, 1931.		Registrar-General's figures.					Deaths at Various Ages (Figures supplied by Medical Officers of Health.)										Crude Annual Rates per 1,000 of Estimated Population.					Comparability Factor.	Standardised Death rate.	Infant Mortality Rate per 1,000 Births.						
	Average.	Adjusted Population.	Estimated Resident Population.	Live Births.	Still Births.	Deaths at all ages.	Under 1 year.	1 and under 2.	2 and under 3.	3 and under 4.	4 and under 5.	5 and under 6.	6 and under 7.	7 and under 8.	8 and under 9.	9 and under 10.	10 and under 11.	11 and under 12.	12 and under 13.	13 and under 14.	14 and under 15.	15 and under 16.				16 and under 17.	17 and under 18.	18 and under 19.	19 and under 20.	20 and upwards.	Total Deaths.	Birth-rate.	Death-rate.	Infant Mortality Rate.	Other Death-rate.
URBAN.																															
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)				
BARKING B.	3,877	51,270	76,000	1,195	32	604	67	67	13	13	26	20	41	53	52	80	121	122	608	15.7	7.9	0.4	0.5	0.8	1.25	9.9	56				
BENFLEET	6,361	12,091	14,560	213	6	185	11	11	1	1	2	5	5	5	19	23	56	57	185	14.6	12.7	0.2	0.5	0.2	.83	10.5	52				
BILLEROY	29,367	27,708	32,027	465	13	371	22	19	4	4	8	7	14	22	34	58	92	109	371	14.3	11.4	0.3	0.8	1.1	.89	10.1	47				
BRAINTREE AND BUCKING	6,812	13,497	14,220	167	7	169	8	8	1	1	5	6	3	7	14	20	58	46	169	11.7	11.9	...	0.4	0.7	.90	10.7	48				
BRENTWOOD	18,269	23,004	26,410	330	10	234	5	5	3	...	...	...	...	...	...	...	...	234	66	12.4	15.7	...	0.5	0.8	.93	8.3	16
BROMLINGS	2,852	4,147	4,192	52	...	66	3	3	...	...	...	...	2	1	6	10	20	24	66	12.4	15.7	...	0.5	1.7	.66	10.4	58
BURNHAM-ON-CROUCH	5,352	3,492	3,508	55	2	44	2	2	1	...	...	...	2	1	2	4	18	14	44	15.7	12.5	0.3	0.3	0.3	.75	9.4	36	
CANVEY ISLAND	4,351	3,532	6,044	92	...	72	9	9	2	...	3	2	2	5	4	18	12	15	72	15.2	11.9	0.8	1.2	1.2	.91	10.8	98				
CHELMSFORD B.	4,772	27,457	29,900	409	12	313	21	21	3	2	11	6	8	15	25	54	74	94	313	13.7	10.5	0.1	0.2	1.6	1.00	10.5	51				
CHIGWELL	8,971	16,338	20,780	295	14	194	18	18	1	...	5	7	7	9	16	26	36	69	194	14.2	9.4	...	0.2	0.5	.96	8.9	61				
CHINGFORD	2,868	22,076	32,350	563	23	236	21	20	3	2	5	11	15	17	28	36	54	45	236	17.1	7.2	0.2	0.6	0.7	1.16	8.3	37				
CLACTON-ON-SEA	6,470	16,737	22,500	241	9	257	16	15	...	...	...	8	7	15	24	35	73	77	254	10.7	11.4	0.2	0.3	0.7	.84	9.6	56	
COLCHESTER B.	12,011	49,131	51,110	720	27	552	28	23	5	6	9	15	19	18	35	91	135	189	551	14.1	10.8	0.1	0.4	0.9	.94	10.1	39				
DAGENHAM	6,554	89,352	102,000	1,884	64	654	106	109	30	34	40	36	59	74	69	72	82	81	656	18.5	18.5	...	0.5	0.7	1.53	9.8	56				
EPPING	1,488	5,081	5,778	86	2	74	3	3	...	2	1	3	1	4	7	10	19	20	70	14.9	12.8	0.3	0.5	0.9	.75	9.6	35				
ERINGTON AND WALTON	6,293	7,324	7,150	82	5	97	6	6	1	...	...	...	4	5	6	16	28	32	98	11.5	13.6	0.1	0.6	1.7	.83	11.3	73	
GRAVESEND	...	...	4,712	90	1	65	7	...	...	...	See Thurrock District.	...	...	...	...	...	...	...	...	19.0	13.7	...	0.6	2.1	1.08	14.8	78
HALESTAD	1,176	6,012	5,886	70	4	85	2	2	...	...	...	2	4	3	13	11	16	29	80	11.9	14.4	...	0.8	0.5	.81	11.7	29	
HARWICH B.	1,512	12,046	12,770	181	9	140	3	3	...	...	5	2	10	7	12	22	34	45	140	14.2	11.9	0.1	0.8	0.9	1.04	11.4	17		
HORNHURCH	19,768	39,389	64,355	1,301	45	510	62	62	5	8	13	18	29	45	46	70	100	114	511	20.2	7.9	0.3	0.5	0.7	1.11	8.8	48				
ILFORD B.	8,425	131,061	157,300	2,213	65	1,291	96	96	14	15	29	32	69	79	111	216	294	335	1,291	14.1	8.2	0.2	0.5	0.7	1.10	9.0	48				
LETON B.	2,594	128,313	119,990	1,421	44	1,272	74	74	20	29	23	43	115	332	332	636	636	1,272	11.8	10.6	0.4	0.5	1.2	.97	10.3	52					
MALDEN B.	4,809	8,542	8,995	115	5	111	5	5	1	2	1	3	4	4	9	15	27	40	111	12.8	12.3	0.2	0.2	1.0	.83	10.2	43				
PURFLEET	...	...	2,272	36	...	29	3	...	...	...	See Thurrock District.	...	...	...	...	...	...	...	...	15.8	12.8	1.3	0.9	1.3	1.05	13.4	83
RATLEIGH	5,727	6,407	7,265	92	3	93	7	7	...	...	1	...	...	7	8	12	20	38	93	12.7	12.8	...	0.6	0.7	.89	11.4	76
ROMFORD	9,312	37,849	49,250	801	28	475	49	48	5	14	16	10	29	33	45	66	93	117	476	16.3	9.7	0.2	0.5	0.7	1.08	10.5	61				
SAFFRON WALDEN B.	7,602	5,930	6,255	62	3	65	1	...	...	1	2	2	1	2	3	15	16	23	65	9.9	10.4	0.2	...	0.5	.71	7.4	16		
SAFFRON WALDEN C.	38,324	61,641	49,653	881	23	469	55	73	14	12	19	27	28	43	74	99	129	150	618	17.7	9.4	0.4	0.4	0.8	1.35	12.7	62				
THURROCK	...	...	4,000	74	1	39	4	...	...	...	See Thurrock District.	...	...	...	...	...	...	...	...	18.5	9.8	0.5	1.0	2.5	1.11	10.9	54
THURROCK	...	...	6,962	104	3	77	6	7	1	...	1	2	2	6	11	7	18	23	78	14.9	11.1	0.1	0.3	0.4	.97	10.8	58		
WALTHAM HOLY CROSS	10,958	7,092	132,972	1,715	54	1,321	72	72	14	12	24	46	106	372	372	675	675	1,321	12.8	9.9	0.2	0.5	1.1	1.11	11.0	42					
WALTHAMSTOW B.	4,342	43,129	52,010	689	30	471	27	27	4	7	12	9	14	23	32	80	112	151	471	13.4	9.1	0.2	0.3	0.9	.97	8.8	39				
WANSTEAD AND WOODFORD	3,842	2,067	2,311	23	1	43	2	2	...	...	...	...	...	...	...	...	...	...	...	14.9	18.6	...	...	...	.68	12.6	87
WEST MERSEA	3,171	6,751	7,150	97	5	76	8	8	...	...	3	2	3	3	5	15	13	24	76	13.6	10.6	0.3	0.1	1.5	1.01	10.7	92		
WIDHAM	7,329	2,193	2,166	28	2	45	...	1	1	...	...	...	3	...	5	...	1	17	46	13.0	20.9	...	1.4	1.4	.73	15.3	36	
WIVENHOE			
a. TOTAL	256,982	1,004,325	1,146,402	15,842	352	10,802	829	829	143	159	261	326	465	651	995	1,649	2,448	2,876	10,802	14.7	9.4	0.3	0.5	0.9	1.05	10.9	49				
RURAL.																															
BRAINTREE	59,556	16,378	15,710	188	6	221	9	9	...	1	2	4	4	5	15	34	59	88	221	12.0	14.1	0.1	0.4	1.4	.77	10.9	48				
CHELMSFORD	86,566	27,836	29,748	444	12	379	18	18	6	2	5	8	13	19	21	45	94	148	379	14.9	12.7	0.2	0.1	1.3	.85	10.8	41				
DUNSTON	72,487	15,320	16,100	239	6	233	11	11	3	4	6	6	4	10	14	29	54	92	233	14.8	14.5	0.1	0.4	1.6	.79	11.5	46				
EPPING	34,831	13,576	14,550	183	8	189	11	11	...	2	4	2	9	6	16	41	45	51	187	12.6	13.0	0.1	0.3	0.8	.89	11.6	60				
HALESTAD	76,693	15,997	15,720	169	6	237	2	1	2	...	2	2	2	4	24	33	63	92	228	10.8	15.1	0.2	0.4	1.3	.73	11.0	12				
LEXDEN AND WINSTREE	66,097	19,418	19,870	277	8	263	9	9	3	2	4	8	4	11	15	36	69	103	264	13.9	13.2	0.1	0.3	1.4	.77	10.2	32				
MALDEN	78,507	13,348	13,626	173	5	176	9	9	1	2	5	5	2	8	11	26	48	59	176	12.7	12.9	0.1	0.3	1.0	.75	9.7	52				
ONAR	47,236	11,523	12,430	204	5	148	7	7	1	2	3	5	5	6	9	18	33	59	148	16.3	11.9	0.3	0.2	1.1	.90	10.7	34				
ORSETT	...	...	6,240	82	3	66	4	...	...	...	See Thurrock District.	...	...	...	...	...	...	...	...	13.1	10.6	...	0.6	1.4	1.00	10.6	49
ROCHFORD	36,080	13,950	16,250	215	7	146	17	17	...	1	4	3	3	2	11	23	43	41	148	13.2	9.0	0.2	0.2	1.0	.79	7.1	79				
SAFFRON WALDEN	78,585	15,643	15,480	192	7	220	8	8	...	1	2	5	4	10	11	14	73	92	220	12.4	14.2	...	0.1	1.2	.74	10.5	42				
TENDRING	65,884	21,771	22,290	308	15	289	20	20	3	...	5	3	9	15	20	40	59	114	289	13.8	13.0	0.1	0.2	1.3	.81	10.2	65				
a. TOTAL	702,482	184,679	188,058	2,674	88	2,567	125	125	19	19	43	52	62	99	160	361	663	955	2,567	13.5	12.0	0.1	0.3	1.2	.80	10.4	47				
TOTAL BOROUGH AND URBAN DISTRICTS ..																															
TOTAL RURAL DISTRICTS ..																															
TOTAL ADMINISTRATIVE COUNTY ..																															
(c) Mid-year estimate of population for area as now constituted—Urban District of Billerica ... 33,592																															
Rural District of Chelmsford ... 29,321																															
Total for Rural Districts ... 191,391																															
(b) These figures relate to 3 months ended 31st March, 1936.																															
(c) From 1st April, 1936.																															

Mortuaries at Public Assistance Institutions.

Further consideration was given during the year to the mortuary accommodation at the County Public Assistance Institutions.

New mortuaries have been erected at the Epping Institution and at St. John's Hospital, Chelmsford. The building of a new mortuary at the Braintree Institution will shortly be completed.

The mortuary accommodation at the remainder of Institutions is at present considered satisfactory.

The Nursing of the Chronic and Infirm Sick.

The "Essex Scheme" for the two years' training of suitable women as Assistant Nurses for the care of the chronic sick and infirm referred to in detail in previous reports, passed its first milestone in March, 1937, and the first entrants to the scheme took their final examination.

The General Nursing Council were requested to undertake this examination, but could not see their way to do so. Nevertheless, we were successful in obtaining the services of a wellknown and very experienced examiner. She writes as follows:—

"I was very interested in these Nurses and most pleasantly surprised to find how competent they were. They appeared to be a very nice type of girl as far as I could judge in the time I saw them. I hope you will be pleased with the results. I find they have been taught more than I expected, so before the next examination I should like a copy of their Ward charts of work so that I may ask anything which appears on these.

Paper. The papers were well written, well expressed and almost all had faultless spelling. The nursing question was the one obtaining the highest marks, although two or three wrote a very good description of the functions of the alimentary canal.

Bedmaking. Very good. Nurses worked quickly and deftly. Loss of marks occurred from not lifting the mattress to the head of the bedstead, not dusting out crumbs and fluff from the mackintosh sheets before inserting the clean sheets, and badly applied drawsheets with wrinkled mackintosh.

Application of Treatment. Correct—medical fomentation (but much too small), mouth swabbing (patient was asked to sit up for mouth wash, although told she could not sit up), surgical fomentation, temperature, pulse and respiration. Incorrect—ice bag, ointment dressing, turpentine stupe.

Measurement of Drugs. Correct—8.

Preparation for Treatment. Correct—nasal feeding, vaginal douche, rectal saline, stomach lavage, catheter, injection of antitoxin, subcutaneous saline, lumbar puncture.

Urine Testing. With one exception all the tests asked were correctly made. All Nurses were careful and clean in this work and all remembered to wash before starting the next work.

Bandaging. Very good. Six candidates obtained full marks. Reef knot and clovehitch were also well known. One Nurse could not apply a sling correctly and one Nurse used a 3in. bandage to bandage a thumb with a clumsy uncomfortable result.

Sewing. Very poor. The T. bandage should have the tail divided. Several Nurses did not do this. The waistband was very badly made, being sewn on twisted instead of flat and the stitching was appalling as though done in a great hurry. Several Nurses lost all marks.

In appearance the Nurses were neat, clean and tidy. They worked quickly and kept well up to time. They answered questions without hesitation and seemed eager to prove their efficiency. Their manner towards the patients was kind, attentive and gentle.

The Nurses' work testifies they have been taught by competent careful teachers with real practical experience."

Thirteen out of fourteen candidates obtained the requisite fifty per cent. of marks, 4 obtaining over seventy-five per cent. and were regarded as having passed with honours.

The Matrons of the respective Institutions and the Sister Tutor are to be congratulated on the excellent work they carried out to bring about these results.

Free Choice of Doctor System.

The "Free Choice of Doctor System," details of which were given in the Annual Report for 1935, came into operation on 1st January, 1936, for an experimental period of twelve months in the relief areas of Clacton, Chingford and Walthamstow. At the end of the year the County Medical Officer submitted to the Public Assistance Committee a report on the work of the scheme, and made the following observations :—

				Estimated Population.	Number of Approved Medical Practitioners participating on 31st December, 1936.
Walthamstow	..	..	134,490	..	42
Chingford	..	..	29,690	..	16
Clacton	..	..	21,030	..	3

- (1) All approved medical practitioners have been visited and it was found that the records of patients have been reasonably well kept by the doctors, and the patients would appear to be getting satisfactory treatment.
- (2) The most noteworthy point is the higher percentage of women and children over men—roughly 10 per cent. were men. The high percentage of children might be explained by the fact that last year there was a prevalence of measles in the districts of Walthamstow and Chingford.

- (3) No excessive prescribing has been noted.
- (4) The relations between the approved medical practitioners and the relieving officers and chemists have been excellent throughout the year.
- (5) The approved medical practitioners have no complaints against the scheme, and so far as I am aware very few complaints have been received from patients. After inquiry and visits to the doctors concerned any troubles have been adjusted.

From the estimated figures available as to the cost of the scheme to the County Council, there is, of course, some increase as compared with that of the District Medical Officer services in the areas prior to the operation of the scheme. Nevertheless, the County Council has agreed to continue the scheme for a further period ending March 31st, 1938, after which time it is hoped that the data available will permit of a more detailed report being drawn up.

TABLE XXIV.
CAUSES OF DEATH—YEAR 1936.

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(Figures supplied by the Registrar-General.)

SANITARY DISTRICT.	Typhoid Fever, etc.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Encephalitis Lethargica.	Cerebro-Spinal Fever.	Respiratory Tuberculosis.	Other Tuberculosis.	Syphilis.	General Paralysis of the Insane, etc.	Cancer.	Diabetes.	Cerebral Hemorrhage.	Heart Disease.	Aneurism.	Other Circulatory Diseases.	Bronchitis.	Pneumonia.	Other Respiratory Diseases.	Poplite Ulnar.	Diarrhoea, etc. (under 2 years.)	Appendicitis.	Cirrhosis of Liver.	Other Liver Diseases.	Other Digestive Diseases.	Nephritis.	Puerperal Sepsis.	Other Puerperal Causes.	Constitutional Causes, etc.	Senility.	Suicide.	Other Violence.	Other Defined Causes.	Ill-defined Causes.	Total.	Special Causes (included in Column 35.)		
URBAN.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)				
BARKING B.	2	14	1	8	3	7	...	2	37	7	2	2	76	8	26	153	7	19	20	36	4	9	6	5	1	5	10	10	1	2	38	11	6	20	46	...	604	...	...
BENFLEET ..	...	...	...	1	1	...	...	...	8	1	...	1	33	7	12	59	1	10	1	2	...	4	1	1	...	...	3	4	...	1	5	1	3	7	16	...	185	...	...
BILLERICAT ..	1	3	...	12	3	12	...	1	26	3	...	...	53	6	16	71	1	18	11	21	4	4	1	3	...	3	6	10	1	2	12	31	5	18	34	...	371	...	...
BRAINTREE & BOOKING	...	...	...	...	...	5	1	...	6	...	...	...	20	5	20	43	...	18	3	7	1	1	...	...	...	2	3	...	1	6	5	8	9	...	169	...	...	
BRENTWOOD ..	...	...	...	...	...	1	...	...	12	3	...	1	28	4	9	59	1	20	6	13	2	4	...	1	1	3	2	12	...	3	17	3	5	23	1	...	234	...	...
BRIGHTLINGSEA	...	...	...	...	...	...	...	...	12	1	...	...	9	...	4	19	...	4	3	4	...	...	...	...	...	1	5	...	...	12	3	...	1	7	1	...	66	...	...
BURNHAM-ON-CROUCH	...	...	...	...	...	...	...	...	1	...	...	...	7	...	6	11	...	2	...	1	...	...	1	1	...	1	2	...	...	1	1	...	1	6	...	44	...	...
CANVEY ISLAND	1	...	...	1	...	...	...	1	...	...	...	...	12	1	12	20	1	1	...	7	...	...	3	1	...	...	2	2	...	2	...	...	1	2	5	...	72	...	...
CHELMSFORD B.	...	...	2	...	...	1	1	1	...	4	1	1	48	3	18	63	1	18	14	32	3	1	1	1	...	3	10	6	...	...	11	23	13	23	...	313	...	...
CHIGWELL ..	1	...	...	...	...	5	...	1	...	2	...	...	27	3	16	47	1	12	6	3	1	5	1	2	1	3	2	2	...	13	4	1	5	24	...	194	...	...
CHINGFORD ..	1	...	1	1	1	4	1	...	19	4	...	...	33	3	7	57	1	13	3	18	1	3	2	1	...	3	7	...	1	12	1	...	12	24	...	236	...	...
CLACTON-ON-SEA	1	...	...	...	1	...	...	6	1	...	...	2	36	...	12	68	1	18	9	6	1	7	2	2	1	...	7	4	...	1	12	13	3	2	32	...	257	...	...
COLCHESTER B.	...	1	...	2	...	8	1	1	19	3	3	...	91	6	28	162	3	21	23	16	7	10	...	6	1	10	12	24	1	2	22	6	8	12	43	...	552	...	...
DAGENHAM ..	1	25	1	5	24	9	...	1	67	11	...	1	72	6	22	119	4	14	12	54	4	4	15	4	2	1	15	13	3	1	53	12	7	25	56	1	654	1	1	
EPING ..	...	...	1	...	...	1	...	...	3	...	...	...	11	...	9	14	...	2	2	1	2	...	1	2	...	...	2	3	...	1	2	7	1	4	6	...	74	...	...
FRINTON & WALTON	...	...	...	1	...	1	...	...	4	...	...	1	12	3	9	24	...	7	4	7	1	...	...	...	...	...	1	5	...	4	2	1	3	7	...	97	...	...
GRAYS ..	...	...	...	...	...	1	...	...	3	2	...	...	10	3	1	9	...	2	2	7	1	2	...	...	...	...	1	4	1	1	3	5	1	1	5	...	65	...	...
HALSTEAD ..	...	...	...	...	...	3	...	...	5	...	...	...	10	2	4	18	...	2	1	2	...	2	...	...	...	4	...	...	...	1	18	...	3	10	...	85	...	...
HARWICH B.	...	3	1	...	1	4	...	...	10	3	...	...	18	2	9	32	...	12	4	6	2	...	...	...	1	...	6	...	1	3	9	3	5	...	140	...	...	
HORNCHURCH	...	3	1	...	6	9	...	...	31	5	...	...	71	2	16	115	1	15	13	29	1	3	7	3	2	3	12	20	1	3	39	22	6	22	47	...	510	...	...
ILFORD B.	1	9	1	3	5	21	...	1	72	10	2	4	190	22	63	338	1	58	40	58	17	12	10	4	6	30	26	1	3	66	51	10	44	107	1	1291	...	...
LEYTON B.	1	23	2	12	11	8	...	2	56	13	2	6	205	20	85	355	11	44	47	83	12	14	7	8	4	12	16	24	2	...	41	15	12	34	93	2	1272	...	...
MALDON B.	...	...	...	1	1	...	...	...	2	1	...	...	14	3	10	44	1	1	4	3	2	1	...	3	...	...	3	1	...	...	1	3	1	6	5	...	111	...	...
*PURFLEET ..	...	1	...	1	...	3	...	...	2	...	...	...	2	1	1	5	...	1	...	3	...	...	1	...	...	...	2	2	...	...	...	2	...	1	1	...	29	...	...
RATLEIGH ..	...	...	...	...	...	1	...	...	4	...	...	...	16	3	4	24	1	9	3	2	...	...	...	1	...	...	3	...	1	...	3	...	4	12	...	93	...	...
ROMFORD ..	4	1	1	3	6	...	...	24	7	...	...	...	64	6	20	134	...	15	6	22	8	4	1	6	2	7	8	3	1	33	19	6	15	50	...	478	...	...
SAFFRON WALDEN B.	1	2	1	8	1	4	19	...	6	1	1	1	1	4	2	...	1	1	...	2	...	3	4	3	...	65
†THURROCK ..	1	6	2	1	3	2	...	20	3	1	4	72	6	27	90	3	16	16	26	...	9	9	5	...	1	10	11	1	3	29	21	1	22	48	...	469	...	...
*TILBURY ..	2	...	...	...	...	...	...	4	...	...	1	...	5	...	3	1	1	2	6	2	1	...	...	...	...	1	2	...	...	2	2	...	2	...	3	...	39	...	...
WALTHAM HOLY CROSS	1	...	...	...	...	...	...	2	1	...	...	...	13	2	4	28	1	2	3	...	...	...	1	1	1	1	3	...	...	4	...	1	1	7	...	77	...	...
WALTHAMSTOW B.	8	1	4	2	26	2	2	73	14	4	8	192	16	85	374	7	43	58	73	18	21	11	15	1	5	23	46	1	2	37	17	15	33	82	2	1321	...	...
WANSTEAD & WOODFORD	...	8	...	1	2	...	...	...	16	3	...	...	95	4	27	113	...	30	14	29	2	10	1	7	...	2	9	12	...	2	20	13	3	10	38	...	471	...	...
WEST MERSEA	...	...	...	...	...	2	...	...	1	...	...	...	7	2	2	12	...	1	1	1	...	...	...	...	...	1	1	...	...	...	...	...	2	10	...	43	...	...
WITHAM ..	...	...	...	2	...	...	...	1	...	...	...	1	11	1	7	11	...	3	5	3	3	1	...	1	...	3	...	5	...	...	6	2	1	2	4	1	76	...	...
WIVENHOPE	...	...	...	...	...	...	...	3	...	...	...	...	6	2	3	10	...	3	1	2	...	...	...	1	...	2	3	...	...	...	...	1	...	4	4	...	45	...	...
	8	111	11	37	70	136	6	12	547	107	16	32	1577	159	588	2723	49	461	338	584	100	134	81	84	24	68	212	286	20	29	486	339	101	352	897	17	10802	1	5	...
RURAL.																																								
BRAINTREE	...	...	...	...	...	2	...	...	6	2	1	1	34	...	19	51	...	18	11	7	4	3	2	...	1	...	6	2	...	1	5	15	2	6	21	2	221	...	...
CHELMSFORD	1	...	1	1	...	3	...	1	4	4	2	...	56	7	20	83	...	13	13	24	3	2	2	3	1	3	9	5	...	10	44	2	20	42	...	379	...	...
DUNMOW ..	...	...	...	...	...	2	...	...	6	...	...	...	31	6	18	49	...	25	14	12	1	1	...	4	1	1	4	6	...	1	8	9	...	6	22	...	243	...	...
EPING ..	...	1	...	1	...	3	...	...	5	...	...	...	23	...	13	58	...	10	2	8	1	3	...	1	1	1	2	4	...	1	7	4	2	9	21	...	189	...	...
HALSTEAD ..	1	...	...	...	...	4	...	...	6	2	...	...	29	6	22	69	...	7	10	10	1	2	2	1	2	1	5	8	...	2	16	3	6	18	...	237	...	...
LEXDEN & WINSTREE	...	...	1	...	1	3	...	...	4	1	...	1	44	2	13	82	1	10	12	14	1	1	...	...	...	1	4	8	...	1	8	8	4	13	23	...	263	...	...
MALDON ..	...	...	1	...	...	...	...	...	4	1	...	1	26	1	10	54	...	4	9	3	2	1	...	4	...	...	4	6	...	1	8	6	2	4	21	3	176	...	...
ONGAR ..	...	...	1	...	2	...	...	...	2	1	...	...	16	...	3	10	48	...	8	4	8	2	...	...	...	2	7	...	...	3	6	1	10	11	...	148	...	...
*ORSETT ..	...	...	...	...	3	...	...	...	4	...	...	...	29	3	12	35	...	7	6	10	...	...	3	1	...	1	...	...	...	1	2	10	...	1	6	...	66	...	...
ROCHFORD ..	1	...	...	...	...	2	...	2	...	...	...	...	36	1	14	56	...	30	5	12	2	...	...	...	3	4	...	...	1	9	2	...	8	8	1	146	...	...
SAFFRON WALDEN	1	2	36	1	14	56	...	30	5	12	2	3	4	7	2	1	7	9	...	7	19	1	220		

TABLE XXV.

NOTIFICATIONS OF INFECTIOUS DISEASE AND ATTACK RATES.

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52 WEEKS ENDED 26TH DECEMBER, 1936.

(Figures obtained from the Weekly Notification Returns.)

SANITARY DISTRICTS.	Estimated Population 1936.	SCARLET FEVER.		DIPHTHERIA.		ENTERIC FEVER.		PUERPERAL FEVER.	PUERPERAL PYREXIA.	ERYSIPELAS.		OPHTHALMIA NEONATORUM.	PNEUMONIA.		ENCEPHAL- ITIS LE- THARGICA.	ACUTE POLIO- MYELITIS.	SMALL- POX.	VARI- OUS.	TOTAL
		No.	Per 1,000	No.	Per 1,000.	No.	Per 1,000	No.	No.	No.	Per 1,000.	No.	No.	No.	No.	No.	No.	No.	
URBAN.																			
BARKING B. ...	76000	380	5.0	158	2.1	6	.08	4	10	46	.60	10	108	1.42	...	14	...	3	739
BENFLEET ...	14560	31	2.1	12	.8	...	...	...	3	3	.21	1	3	.21	...	...	...	...	53
BILLERIOAT ...	32527	50	1.5	31	1.0	2	.06	2	6	10	.31	1	6	.18	...	...	...	21	129
BRAINTREE ...	14220	33	2.3	7	.5	...	...	2	2	3	.21	...	10	.70	...	...	...	...	57
BRENTWOOD ...	26410	134	5.1	33	1.2	...	...	...	2	13	.49	1	13	.49	...	...	...	31	227
BRIGHTLINGSEA ...	4192	1	.2	...	...	...	...	...	1	1	.24	...	1	.24	...	...	...	...	3
BURNHAM ON-CROUCH ...	3508	1	.3	...	...	...	...	1	...	1	.28	...	3	.86	...	...	...	6	12
CANVEY ISLAND ...	6014	12	2.0	10	1.6	...	...	...	...	1	.16	...	5	.83	...	...	...	...	28
CHELMSFORD B. ...	29900	72	2.4	4	.1	4	.14	2	8	5	.16	...	23	.77	...	...	...	...	116
CHIGWELL ...	20780	19	.9	16	.7	1	.05	1	5	3	.11	...	8	.38	...	...	...	...	52
CHINGFORD ...	32850	53	1.6	13	.4	4	.12	2	11	6	.18	1	14	.43	...	...	...	3	107
CLACTON-ON-SEA ...	22500	39	1.7	8	.3	1	.05	2	2	7	.31	...	1	.05	...	...	...	37	97
CULCHESTER B. ...	51110	51	1.0	43	.8	4	.08	4	1	19	.37	1	83	1.62	...	4	...	237	447
DAGENHAM ...	102000	457	4.5	255	2.5	1	.01	3	6	27	.26	9	118	1.15	...	32	...	15	923
EPPING ...	5778	31	5.4	2	.3	1	.17	...	3	3	.51	...	24	4.15	...	...	...	4	68
FRINTON & WALTON ...	7150	6	.8	...	...	...	...	...	...	1	.14	...	2	.28	...	...	...	8	17
*GRAYS ...	4742	10	2.1	2	.4	...	...	1	1	4	.84	...	4	.84	...	...	...	...	22
HALSTEAD ...	5886	3	.5	...	...	...	...	...	...	3	.51	...	5	.85	...	...	...	1	12
HARWICH B. ...	12770	19	1.5	1	.1	...	...	...	...	...	...	25	1.96	...	...	...	...	...	45
HORNCHURCH ...	64385	236	3.7	103	1.6	2	.03	...	4	20	.31	9	48	.75	...	...	...	3	425
LEFORD B. ...	157300	347	2.2	138	.9	18	.11	6	35	45	.28	9	128	.81	...	7	...	40	773
LEYTON B. ...	119900	356	3.1	232	1.9	4	.03	4	14	60	.50	6	114	.95	...	1	...	7	808
MALDON B. ...	8995	1	.1	12	1.3	...	...	...	1	3	.33	...	7	.78	...	...	...	17	41
*PURFLEET ...	2272	1	.4	5	2.2	...	...	...	2	...	...	...	4	.76	...	...	...	...	12
RATLEIGH ...	7265	25	3.4	2	.3	...	...	...	...	2	.27	...	2	.27	...	...	...	...	31
ROMFORD ...	49250	142	2.9	60	1.2	7	.14	4	7	9	.18	3	20	.41	4	1	...	2	259
SAFFRON WALDEN B. ...	6256	23	3.7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23
†THURROCK ...	49663	159	3.2	33	.7	3	.06	...	4	1	.08	3	3	.06	2	4	...	3	219
*TILBURY ...	4000	11	2.8	...	...	...	...	2	5	17	4.25	...	21	5.25	...	...	...	...	56
WALTHAM HOLY CROSS ...	6962	20	2.8	2	.3	...	...	...	1	4	.57	1	3	.43	...	...	...	30	61
WALTHAMSTOW B. ...	133600	313	2.3	100	.7	8	.05	5	30	52	.33	2	150	1.13	1	5	...	676	1342
WHEATSTAD & WOODFORD ...	52010	145	2.7	51	1.0	2	0.4	2	4	12	.23	...	39	.75	...	2	...	...	257
WEST MERSEA... ..	2311	...	...	14	6.1	...	...	...	1	1	.45	...	...	...	...	...	...	...	16
WITHAM ...	7150	10	1.4	6	.8	...	...	...	...	1	.14	...	3	.42	...	...	...	...	20
WIVENHOE ...	2156	2	0.9	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	3
	1146402	3205	2.8	1352	1.2	68	.06	51	166	381	.33	57	998	.87	7	70	...	1144	7500
RURAL.																			
BRAINTREE ...	15710	20	1.3	3	.2	...	...	1	1	4	.25	...	16	1.02	...	...	...	...	45
CHELMSFORD ...	29748	71	2.4	3	.1	2	.1	1	1	3	.10	...	8	.26	...	...	...	...	89
DUNHLOW ...	16100	15	.9	...	...	...	...	...	3	2	.12	...	5	.31	...	...	...	...	25
EPPING ...	14550	19	1.3	4	.3	...	...	1	...	...	...	...	15	1.03	...	...	...	39	78
HALSTEAD ...	15720	8	.5	10	.6	...	...	...	1	5	.32	...	2	.13	...	...	...	1	27
LEXDEN AND WINSTREE ...	19876	28	1.4	18	.9	1	.1	3	...	3	.15	...	8	.40	...	...	...	...	61
MALDON ...	13620	6	.4	6	.4	...	...	1	...	1	.07	...	5	.37	...	...	...	...	19
ONGAR ...	12480	21	1.7	8	.6	1	.1	...	...	2	.16	...	10	.80	...	...	...	1	43
*ORSETT ...	6240	19	3.0	4	.6	...	...	...	1	3	.48	...	8	1.28	...	...	...	...	35
ROCHFORD ...	16250	30	1.8	12	.7	...	...	...	1	...	...	1	5	.31	...	1	...	...	50
SAFFRON WALDEN ...	15480	41	2.6	...	...	...	...	3	2	1	.06	...	4	.26	...	...	...	...	51
TENDRINO ...	22290	40	1.8	1	.1	...	...	...	3	6	.27	...	10	.45	...	...	...	...	60
	198058	318	1.6	69	.3	4	.02	10	13	30	.15	1	96	.48	...	1	...	41	583
TOT. BORO'S & URBAN DISTRICTS	1146402	3203	2.8	1352	1.2	68	.06	51	166	384	.33	57	998	.87	7	70	...	1144	7500
TOTAL RURAL DISTRICTS	198058	318	1.6	69	.3	4	.02	10	13	30	.15	1	96	.48	...	1	...	41	583
TOTAL FOR ADMIN. COUNTY	1344460	3521	2.6	1421	1.1	72	.05	61	179	414	.31	58	1094	.81	7	71	...	1185	8083

*These figures relate to 3 months ended 31st March, 1936.

†Newly created Thurrock Urban District 1st April, 1936, see page 35.

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